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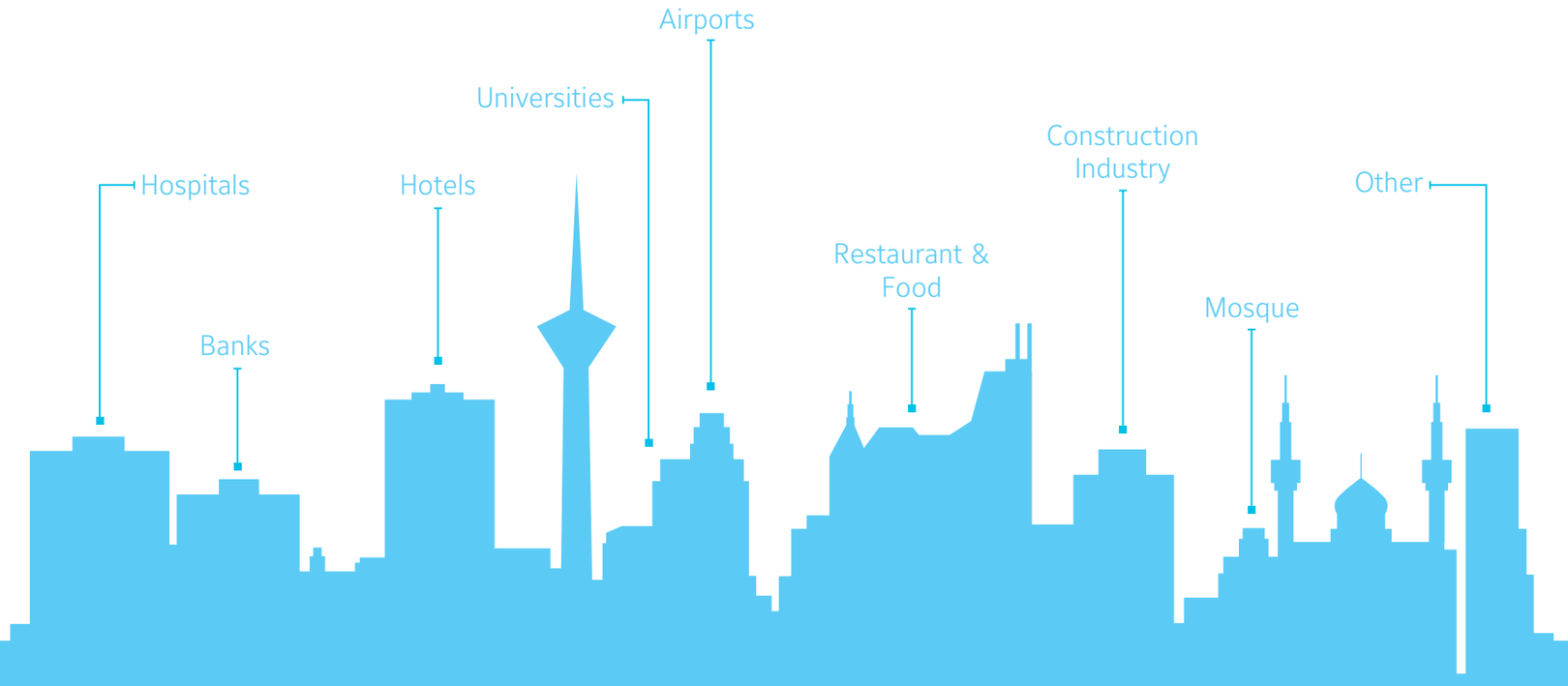
UNITARY
AIR-COOLED CHILLER

Saran
Life's Pleasant Breeze



AIR CONDITIONING MFG.GROUP

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Contents

NOMENCLATURE

2 SR LC S – 100 AU – 900

- 900 — Condenser Model
- AU — Unitary Air Cooled
- 100 — Nominal Cooling Capacity (T.R)
- S — Compressors Type
  - S: Compact Screw
  - R: Semi-Hermetic Reciprocating
  - H: Hermetic Scroll
- LC — Liquid Chiller
- SR — SARAN
- 2 — No. of Comperessor

Introduction

Saran unitary air-cooled chillers are the premium solution for commercial and industrial applications where installers, consultants and building owner require optimal performances and maximum quality.
Saran unitary air-cooled chillers are available in the capacity range of 5 to 720 tons of refrigeration in one to four independent refrigerant circuits (For capacities upper than 360 TR please send your inquiry to Saran MFG group). All components of Saran unitary air-cooled chillers selected from reliable and famous international brands or designed and constructed base on international air-conditioning equipment's standards.

Main Features

Casing

Suitable heavy gage galvanized steel sheets are used for constructing of Saran unitary air-cooled chiller's casing panels. To facilitate installation, the units are mounted on a proper chassis. The base channels and casings are coated with proper thickness painting for archive to maximum corrosion protection.

Compressor

Saran unitary air-cooled chillers available with screw, reciprocating or scroll type compressor, so these units not only cover wide range of cooling capacities and applications, but also can obtain special features base on selected compressor.

Evaporator

The evaporators of all units are designed and constructed base on the TEMA and ASME-Section VII code, respectively. The enhanced surface tubes use in all shell and tube evaporators to achieve much more compact and efficient units. (Shell and tube, direct-expansion type evaporators used in all units, however other types of evaporators also available upon request).

Condenser

The condenser coils are made of staggered rows of 3/8 inches diameter seamless inner grooved copper tube, mechanically expanded into slit aluminum fins to ensure optimum heat exchange capability. The fins have full spacing collars which completely cover each tube. The staggered tube design improves the thermal efficiency of the coil and eliminates bypassing of air around the tubes. A separate sub cooling circuit is standard on all units to maximize energy efficiency. The condenser coils are designed and constructed base on AHRI standards and equipped with suitable low noise axial fans from well-known international brands, which automatically controlled base on condensing temperature to obtain a satisfactory performance in different ambient conditions. For proper operation of air-cooled chiller in low ambient temperatures, (ambient temperature below 55°F), the chiller equipped with a winter start system.

Refrigerant

Saran unitary air-cooled chillers can be design to operate with R-22, R-407C and R-134a refrigerants, so these units can operating more efficient in wide range of ambient conditions.(in the tropical conditions is suggested to use R-134a)

Safety Protection

For more efficiency and safe operation of the units, Saran unitary air-cooled chillers equipped with various safety and operating controls such as, high and low pressure cutout, oil level control, water anti freeze thermostat, water flow switch, evaporator entering water thermostat, compressor operation time logger, three phase controller, circuit breakers and fault detection system. (Microprocessor based PLC controller is also available upon request). All above-mentioned equipment selected from the most recognized controls manufactures in the air conditioning industry

Selection Information

General

Cooling capacity of Saran unitary air-cooled chiller models presented in the "Performance Data" tables; cover the most frequently encountered leaving water temperatures.

The unitary air-cooled chillers are rated over a range of leaving water temperatures of 42°F to 46°F and condensing temperatures of 115°F to 130°F (up to 140°F for R-134a).

To select a Saran unitary air-cooled chiller, the following information is required:

1. Design system load (Btu/h)
2. Design leaving water temperature (°F)
3. Design chilled water range (°F)
4. Evaporator fouling factor (h.ft^2.°F /Btu)
5. Design ambient temperature (°F)
6. Altitude (ft)

Chilled Water Flow and Range

Required cooling capacity and the desired chilled water range are two important factors in determining the amount of water to be circulate in the evaporator. The following formula used for determining chilled water flow:

$$\text{Chilled Water Flow (GPM)} = \frac{24\times \text{Cooling Capacity (TR)}}{\text{Chilled Water Range (°F)}}$$

Performance tables in this catalogue are based on a 10°F temperature drop through the evaporator. In other conditions please using following correction factors for performance data:

Table 1: Chilled Water Range Correction Factors

Chilled Water Range (°F)	Capacity Multiplier	Power Multiplier
6	0.992	0.995
8	0.995	0.997
10	1.000	1.000
12	1.005	1.002
14	1.010	1.005
16	1.014	1.007

Fouling factor

The cooling capacity of the unitary air-cooled chillers in this catalogue permit a fouling factor of 0.0001 h.ft^2.°F/Btu (ARI Standard 550/590-98) for the evaporators. In other conditions please using following correction factors for performance data:

Table 2: Fouling Factor Correction Factors

Fouling Factor (h.ft^2.°F /Btu)	Capacity Multiplier	Power Multiplier
0.00010	1	1
0.00025	0.992	0.997
0.00050	0.978	0.990
0.00075	0.965	0.984
0.00100	0.951	0.978

Condensing Temperature and Condenser Data

Generally, considering the condenser temperature of 20°F higher than the ambient temperature (20°F condensing range) is the best compromise for the most economical selection of air-cooled condensers. According to the above suggestion, after selection of air-cooled chiller model base on required cooling capacity can referring to condenser performance data tables and select the appropriate condenser model of air-cooled chiller. The performance tables of unitary air-cooled chillers are based on 120°F condensing temperature, in other conditions please using corresponding condensing temperature correction factors.

The performance tables of condensers in this catalogue are based on sea level altitude and 12 fin per inch of coil fin spacing, so in other conditions, please using following correction factors for condensers capacities:

Table 3: Fin Arrangement Correction Factor

Coil Fin Spacing (FPI)	Correction Factor
8	0.79
10	0.91
12	1.00

Table 4: Altitude Correction Factor

Altitude (ft)	Correction Factor
0	1.00
1000	0.98
2000	0.97
3000	0.95
4000	0.93
5000	0.92
6000	0.90

Selection Information (Cont.)

Glycol Solutions

To protection of evaporator from freezing in low ambient temperature conditions, it is suggested to use glycol solution to the chilled water system to provide freeze protection. Freeze point should be approximately 15°F below minimum design ambient temperature.

The use of a glycol/water mixture in the evaporator reduces system capacity and efficiency, as well as increase pressure drop. The system capacity, required glycol solution flow rate, and pressure drop with glycol shall be calculated base on following formula and correction factors:

$$\text{Glycol Flow (GPM)} = \frac{24\times \text{Cooling Capacity (TR)}}{\text{Chilled Water Range (°F)}} \times \text{Flow Correction Factor}$$

Table 5: Ethylene Glycol and Propylene Glycol Correction Factors

Ethylene Glycol %	Freeze Point (°F)	Capacity	Power	Flow	PD
10	26	0.996	0.998	1.037	1.099
20	18	0.988	0.996	1.062	1.225
30	7	0.979	0.994	1.094	1.364
40	-7	0.968	0.990	1.133	1.547
50	-28	0.956	0.987	1.183	1.773

Propylene Glycol %	Freeze Point (°F)	Capacity	Power	Flow	PD
10	26	0.992	0.982	1.018	1.099
20	19	0.980	0.994	1.034	1.206
30	9	0.965	0.990	1.058	1.366
40	-5	0.945	0.983	1.094	1.651
50	-27	0.929	0.979	1.141	1.950

NOTE

- Do not use automotive grade antifreeze. Industrial grade glycols must be used. Automotive antifreeze contains inhibitors, which will cause plating on the copper tubes within the chiller evaporator. The type and handling of glycol used must be consistent with local codes.

Standard condition

Saran unitary air-cooled chiller rating data presented in the "Performance Data" tables indicate capacity of the chiller at the following condition:

- Chilled Water Range: 10°F
- Condensing temperature: 120°F
- Fouling factor: 0.0001 h.ft^2.°F/Btu
- Altitude: Sea level
- Condenser coil fin spacing: 12 FPI

For other condition, performance adjustment factors shall be attend in unit selection base on following formula:

Actual cooling capacity (MBH) = C1 x C2 x C3 x C4 x QE;
Actual compressor power input (kW) = C1 x C2 x C3 x C4 x WC;
Actual chiller required condenser total heat rejection (MBH) = C3 x QC;
Condenser total heat rejection (MBH) = C5 x C6 x THR;

- QE: Cooling capacity in chiller's performance data tables (Table 6a~14a)
- WC: Compressor power input in chiller's performance data tables (Table 6a~14a)
- QC: Chiller's required condenser total heat rejection in chiller's performance data tables (Table 6a~14a)
- THR: Condenser total heat rejection in condenser's performance data tables (Table 15)
- C1: Chilled water range correction factor (Table-1)
- C2: Fouling factor correction factor (Table-2)
- C3: Condensing temperature correction factor (Table 6b~14b)
- C4: Glycol correction factor (Table-5)
- C5: Fin arrangement correction factor (Table-3)
- C6: Altitude correction factor (Table-4)

Selection Example

Given:

Design chilled water flow rate = 150 GPM
Design chilled water range = 10°F
Evaporator leaving water temperature = 45°F
Ambient temperature = 105°F
Evaporator fouling factor = 0.0001 $h.ft^2.°F/Btu$
Altitude = sea level
Refrigerant = R134a
Compressor type = Screw

Solution:

Step 1: Cooling capacity calculation

To calculate the required cooling capacity, we use the following formula:
Cooling Capacity (TR) = Chilled Water Flow (GPM) x Chilled Water Range (°F) / 24;
So in this problem, our required cooling capacity is 62.5 TR (750 MBH);

Step 2: Air-cooled chiller model selection

By referring to the performance data table of air-cooled chiller (Screw – R134a), we can see cooling capacity, compressor power input and condenser total heat rejection of 2SRLCS-100AU (in condenser temperature of 120°F) are 789 MBH, 66 kW and 1003 MBH, respectively. So we select this unit in first step and in the next step, we will check its final performance in the given condition.

Step 3: Real Cooling Capacity of Selected Unit in the given condition

Assuming 20°F condensing range, our condenser temperature is 125°F, so by referring to correction factor table of air-cooled chiller (Screw – R134a), we can see performance correction factor of selected unit for cooling capacity, compressor power input and condenser total heat rejection is 0.9560, 1.0568 and 0.9778, respectively. By above value will have:

Cooling capacity = 789 x 0.9560 = 754.3 MBH

Compressor power input = 66 x 1.0568 = 69.7 kW

Condenser total heat rejection = 1003 x 0.9778 = 980.7 MBH

So cooling capacity of 2SRLCS-100AU satisfy our requirements and our selection in previous step is correct.

Step 4: Condenser model selection

By referring to condensers performance tables (R134a), we can see total heat rejection of 900 from condenser model at 20°F condensing range (on sea level, 12 FPI) is 1237 MBH. So we select this condenser model for our selected chiller.

Finally, appropriate model of Saran unitary air-cooled chiller in our condition will be 2SRLCS-100AU-900.

Step 5: Evaporator pressure drop

To estimate pressure drop of selected air-cooled chiller, by referring to 2SRLCS-100AU pressure drop graph, we can see this unit's pressure drop in 150 GPM is 9 foot of water.

Performance Data

Table 6a: Performance Data (Scroll Compressor) - R22

Models	Evaporator Leaving Water Temperature														
	42°F			43°F			44°F			45°F			46°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH
1SRLCH-5AU	45	3.9	57	46	3.9	58	47	3.9	59	48	3.9	60	49	3.9	61
1SRLCH-7.5AU	72	6.0	91	74	6.0	93	75	6.0	95	77	6.0	96	78	6.0	98
1SRLCH-10AU	97	7.9	122	99	7.9	124	101	7.9	126	103	7.9	128	105	7.9	130
1SRLCH-15AU	141	11.8	181	144	11.8	184	147	11.8	187	150	11.8	190	153	11.9	193
1SRLCH-20AU	190	16.2	245	193	16.2	249	197	16.2	253	201	16.3	257	205	16.3	261
1SRLCH-25AU	242	20.2	311	247	20.3	316	252	20.3	322	258	20.4	327	263	20.4	333
1SRLCH-30AU	293	24.3	376	299	24.4	382	305	24.4	388	311	24.5	394	317	24.5	401
2SRLCH-10AU	89	7.8	115	91	7.8	117	93	7.8	119	95	7.8	121	97	7.8	123
2SRLCH-15AU	144	11.9	183	147	11.9	186	150	11.9	189	154	11.9	192	157	11.9	196
2SRLCH-20AU	193	15.8	244	197	15.8	248	201	15.8	252	205	15.8	256	209	15.8	260
2SRLCH-30AU	281	23.6	362	287	23.6	368	293	23.7	374	299	23.7	380	305	23.7	386
2SRLCH-40AU	379	32.3	490	387	32.4	497	395	32.5	506	403	32.5	514	411	32.6	522
2SRLCH-50AU	484	40.4	622	494	40.5	633	505	40.6	643	515	40.7	654	526	40.9	665
2SRLCH-60AU	586	48.7	752	597	48.8	764	609	48.9	776	622	49.0	789	634	49.1	801
4SRLCH-60AU	563	47.2	724	574	47.3	736	586	47.3	748	598	47.4	760	610	47.4	772
4SRLCH-80AU	758	64.7	979	774	64.8	995	790	64.9	1011	806	65.0	1028	822	65.2	1044
4SRLCH-100AU	968	80.8	1244	988	81.0	1265	1009	81.3	1286	1030	81.5	1308	1052	81.7	1330
4SRLCH-120AU	1171	97.4	1504	1195	97.5	1528	1219	97.7	1552	1243	97.9	1577	1268	98.1	1603

Table 6b: Performance Correction Factors (Scroll Compressor) - R22

Models	Condensing Temperature											
	115°F			120°F			125°F			130°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
1SRLCH-5AU	1.0330	0.9462	1.0138	1.0000	1.0000	1.0000	0.9683	1.0590	0.9872	0.9365	1.1215	0.9761
1SRLCH-7.5AU	1.0314	0.9420	1.0129	1.0000	1.0000	1.0000	0.9670	1.0627	0.9865	0.9322	1.1297	0.9729
1SRLCH-10AU	1.0253	0.9401	1.0119	1.0000	1.0000	1.0000	0.9703	1.0642	0.9905	0.9397	1.1338	0.9810
1SRLCH-15AU	1.0273	0.9459	1.0098	1.0000	1.0000	1.0000	0.9720	1.0575	0.9906	0.9435	1.1189	0.9814
1SRLCH-20AU	1.0292	0.9496	1.0117	1.0000	1.0000	1.0000	0.9701	1.0540	0.9883	0.9395	1.1115	0.9772
1SRLCH-25AU	1.0306	0.9515	1.0135	1.0000	1.0000	1.0000	0.9687	1.0519	0.9866	0.9507	1.1074	0.9737
1SRLCH-30AU	1.0283	0.9512	1.0117	1.0000	1.0000	1.0000	0.9710	1.0523	0.9900	0.9413	1.1083	0.9772
2SRLCH-10AU	1.0330	0.9462	1.0138	1.0000	1.0000	1.0000	0.9683	1.0590	0.9872	0.9365	1.1215	0.9761
2SRLCH-15AU	1.0314	0.9420	1.0129	1.0000	1.0000	1.0000	0.9670	1.0627	0.9865	0.9322	1.1297	0.9729
2SRLCH-20AU	1.0253	0.9401	1.0119	1.0000	1.0000	1.0000	0.9703	1.0642	0.9905	0.9397	1.1338	0.9810
2SRLCH-30AU	1.0273	0.9459	1.0098	1.0000	1.0000	1.0000	0.9720	1.0575	0.9906	0.9435	1.1189	0.9814
2SRLCH-40AU	1.0292	0.9496	1.0117	1.0000	1.0000	1.0000	0.9701	1.0540	0.9883	0.9395	1.1115	0.9772
2SRLCH-50AU	1.0306	0.9515	1.0135	1.0000	1.0000	1.0000	0.9687	1.0519	0.9866	0.9507	1.1074	0.9737
2SRLCH-60AU	1.0283	0.9512	1.0117	1.0000	1.0000	1.0000	0.9710	1.0523	0.9900	0.9413	1.1083	0.9772
4SRLCH-60AU	1.0273	0.9459	1.0098	1.0000	1.0000	1.0000	0.9720	1.0575	0.9906	0.9435	1.1189	0.9814
4SRLCH-80AU	1.0292	0.9496	1.0117	1.0000	1.0000	1.0000	0.9701	1.0540	0.9883	0.9395	1.1115	0.9772
4SRLCH-100AU	1.0306	0.9515	1.0135	1.0000	1.0000	1.0000	0.9687	1.0519	0.9866	0.9507	1.1074	0.9737
4SRLCH-120AU	1.0283	0.9512	1.0117	1.0000	1.0000	1.0000	0.9710	1.0523	0.9900	0.9413	1.1083	0.9772

NOTE

- 1MBH = 1000 Btu/hr
- QE = Actual Cooling Capacity
- WC = Compressor Motor Power Input (380V,3ϕ,50HZ)
- QC = Condenser Total Heat Rejection
- All above data are based on standard condtion (refer to page 7).
- Interpolation is allowed but extrapolation outside table boundary is not allowed. Contact Saran MFG group for operating conditions outside table boundary.
- The above data is subject to change without notice.

Performance Data (Cont.)

Table 7a: Performance Data (Scroll Compressor) - R407C

Models	Evaporator Leaving Water Temperature														
	42°F			43°F			44°F			45°F			46°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH
1SRLCH-5AU	45	3.9	57	45	3.9	58	46	3.9	59	47	3.9	60	48	3.9	61
1SRLCH-7.5AU	71	6.1	91	73	6.1	93	74	6.1	94	76	6.1	96	78	6.1	97
1SRLCH-10AU	93	7.8	119	95	7.8	121	97	7.8	123	99	7.8	125	102	7.9	127
1SRLCH-15AU	132	12.2	173	135	12.2	176	138	12.2	179	141	12.2	183	144	12.2	186
1SRLCH-20AU	182	16.3	238	186	16.4	242	190	16.4	246	195	16.4	251	199	16.4	255
1SRLCH-25AU	224	19.9	292	229	20.0	297	234	20.0	302	239	20.0	308	244	20.1	313
1SRLCH-30AU	277	24.4	360	283	24.4	366	289	24.4	372	295	24.5	379	302	24.5	385
2SRLCH-10AU	89	7.9	114	91	7.9	116	93	7.9	118	94	7.9	120	96	7.9	122
2SRLCH-15AU	142	12.2	182	145	12.2	185	149	12.2	188	152	12.2	192	155	12.2	195
2SRLCH-20AU	186	15.7	237	190	15.7	241	195	15.7	245	199	15.7	250	203	15.7	254
2SRLCH-30AU	264	24.4	347	270	24.4	353	276	24.4	359	282	24.4	365	288	24.4	371
2SRLCH-40AU	364	32.6	475	372	32.7	484	381	32.7	492	389	32.8	501	398	32.8	510
2SRLCH-50AU	449	39.9	585	458	39.9	595	468	40.0	605	478	40.1	615	489	40.2	626
2SRLCH-60AU	554	48.7	720	566	48.8	732	578	48.9	745	590	48.9	757	603	49.0	770
4SRLCH-60AU	528	48.7	694	539	48.7	706	551	48.7	718	564	48.8	730	576	48.8	742
4SRLCH-80AU	728	65.3	951	744	65.4	968	761	65.5	984	778	65.6	1002	795	65.7	1020
4SRLCH-100AU	898	79.7	1170	917	79.9	1190	937	80.0	1210	957	80.2	1230	977	80.3	1251
4SRLCH-120AU	1108	97.4	1440	1132	97.6	1465	1156	97.7	1490	1181	97.8	1515	1206	98.0	1540

Table 7b: Performance Correction Factors (Scroll Compressor) - R407C

Models	Condensing Temperature											
	115°F			120°F			125°F			130°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
1SRLCH-5AU	1.0315	0.9338	1.0105	1.0000	1.0000	1.0000	0.9672	1.0702	0.9898	0.9339	1.1461	0.9797
1SRLCH-7.5AU	1.0355	0.9361	1.0144	1.0000	1.0000	1.0000	0.9626	1.0691	0.9847	0.9217	1.1435	0.9684
1SRLCH-10AU	1.0347	0.9378	1.0147	1.0000	1.0000	1.0000	0.9636	1.0676	0.9862	0.9255	1.1403	0.9699
1SRLCH-15AU	1.0337	0.9412	1.0122	1.0000	1.0000	1.0000	0.9652	1.0634	0.9879	0.9295	1.1312	0.9761
1SRLCH-20AU	1.0351	0.9443	1.0144	1.0000	1.0000	1.0000	0.9642	1.0599	0.9859	0.9277	1.1240	0.9722
1SRLCH-25AU	1.0319	0.9419	1.0115	1.0000	1.0000	1.0000	0.9666	1.0611	0.9879	0.9376	1.1249	0.9754
1SRLCH-30AU	1.0335	0.9449	1.0136	1.0000	1.0000	1.0000	0.9655	1.0588	0.9865	0.9303	1.1214	0.9731
2SRLCH-10AU	1.0315	0.9338	1.0105	1.0000	1.0000	1.0000	0.9672	1.0702	0.9898	0.9339	1.1461	0.9797
2SRLCH-15AU	1.0355	0.9361	1.0144	1.0000	1.0000	1.0000	0.9626	1.0691	0.9847	0.9217	1.1435	0.9684
2SRLCH-20AU	1.0347	0.9378	1.0147	1.0000	1.0000	1.0000	0.9636	1.0676	0.9862	0.9255	1.1403	0.9699
2SRLCH-30AU	1.0337	0.9412	1.0122	1.0000	1.0000	1.0000	0.9652	1.0634	0.9879	0.9295	1.1312	0.9761
2SRLCH-40AU	1.0351	0.9443	1.0144	1.0000	1.0000	1.0000	0.9642	1.0599	0.9859	0.9277	1.1240	0.9722
2SRLCH-50AU	1.0319	0.9419	1.0115	1.0000	1.0000	1.0000	0.9666	1.0611	0.9879	0.9376	1.1249	0.9754
2SRLCH-60AU	1.0335	0.9449	1.0136	1.0000	1.0000	1.0000	0.9655	1.0588	0.9865	0.9303	1.1214	0.9731
4SRLCH-60AU	1.0337	0.9412	1.0122	1.0000	1.0000	1.0000	0.9652	1.0634	0.9879	0.9295	1.1312	0.9761
4SRLCH-80AU	1.0351	0.9443	1.0144	1.0000	1.0000	1.0000	0.9642	1.0599	0.9859	0.9277	1.1240	0.9722
4SRLCH-100AU	1.0319	0.9419	1.0115	1.0000	1.0000	1.0000	0.9666	1.0611	0.9879	0.9376	1.1249	0.9754
4SRLCH-120AU	1.0335	0.9449	1.0136	1.0000	1.0000	1.0000	0.9655	1.0588	0.9865	0.9303	1.1214	0.9731

NOTE

- 1MBH = 1000 Btu/hr
- QE = Actual Cooling Capacity
- WC = Compressor Motor Power Input (380V,3ϕ,50HZ)
- QC = Condenser Total Heat Rejection
- All above data are based on standard condtion (refer to page 7).
- Interpolation is allowed but extrapolation outside table boundary is not allowed. Contact Saran MFG group for operating conditions outside table boundary.
- The above data is subject to change without notice.

Performance Data (Cont.)

Table 8a: Performance Data (Scroll Compressor) - R134a

Models	Evaporator Leaving Water Temperature														
	42°F			43°F			44°F			45°F			46°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH
1SRLCH-5AU	30	2.6	39	31	2.6	40	32	2.7	40	33	2.7	41	34	2.7	42
1SRLCH-7.5AU	46	4.1	60	47	4.1	61	49	4.1	62	50	4.1	63	51	4.1	64
1SRLCH-10AU	63	5.3	80	64	5.3	81	66	5.3	83	67	5.3	84	69	5.3	86
1SRLCH-15AU	94	8.4	121	96	8.4	123	98	8.4	125	100	8.4	128	103	8.4	130
1SRLCH-20AU	122	11.3	161	125	11.3	164	128	11.3	167	131	11.4	170	134	11.4	173
1SRLCH-25AU	153	14.0	201	156	14.1	204	160	14.1	208	164	14.1	212	168	14.1	216
1SRLCH-30AU	192	16.8	250	197	16.8	254	201	16.9	259	206	16.9	263	210	16.9	268
2SRLCH-10AU	61	5.3	78	62	5.3	79	64	5.3	81	65	5.3	82	67	5.3	84
2SRLCH-15AU	92	8.3	119	95	8.3	121	97	8.3	124	99	8.3	126	102	8.3	128
2SRLCH-20AU	126	10.6	160	128	10.6	163	131	10.6	166	134	10.6	169	137	10.6	172
2SRLCH-30AU	187	16.8	241	191	16.8	246	196	16.8	250	200	16.8	255	205	16.8	259
2SRLCH-40AU	245	22.6	322	251	22.6	328	256	22.7	334	262	22.7	340	269	22.7	346
2SRLCH-50AU	306	28.1	402	313	28.1	409	320	28.2	416	327	28.2	424	335	28.3	431
2SRLCH-60AU	385	33.6	499	393	33.7	508	402	33.7	517	411	33.8	527	421	33.8	536
4SRLCH-60AU	374	33.5	482	383	33.5	492	392	33.6	500	400	33.6	510	410	33.6	518
4SRLCH-80AU	490	45.2	644	501	45.3	656	513	45.3	668	525	45.4	680	537	45.4	692
4SRLCH-100AU	612	56.2	803	626	56.2	818	640	56.3	832	655	56.4	848	670	56.5	863
4SRLCH-120AU	770	67.2	999	787	67.3	1017	805	67.4	1035	823	67.5	1053	841	67.6	1072

Table 8b: Performance Correction Factors (Scroll Compressor) - R134a

Models															
	120°F			125°F			130°F			135°F			140°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH
1SRLCH-5AU	1.0000	1.0000	1.0000	0.9675	1.0597	0.9876	0.9343	1.1240	0.9768	0.9017	1.1920	0.9649	0.8691	1.2653	0.9540
1SRLCH-7.5AU	1.0000	1.0000	1.0000	0.9596	1.0625	0.9822	0.9171	1.1298	0.9638	0.8737	1.2024	0.9453	0.8275	1.2809	0.9266
1SRLCH-10AU	1.0000	1.0000	1.0000	0.9671	1.0580	0.9860	0.9330	1.1202	0.9723	0.8977	1.1861	0.9576	0.8612	1.2558	0.9433
1SRLCH-15AU	1.0000	1.0000	1.0000	0.9651	1.0591	0.9848	0.9285	1.1228	0.9704	0.8907	1.1907	0.9561	0.8519	1.2637	0.9408
1SRLCH-20AU	1.0000	1.0000	1.0000	0.9677	1.0536	0.9877	0.9348	1.1101	0.9757	0.9019	1.1699	0.9642	0.8684	1.2329	0.9530
1SRLCH-25AU	1.0000	1.0000	1.0000	0.9674	1.0547	0.9875	0.9344	1.1123	0.9755	0.9012	1.1732	0.9639	0.8676	1.2377	0.9531
1SRLCH-30AU	1.0000	1.0000	1.0000	0.9683	1.0534	0.9872	0.9360	1.1096	0.9814	0.9035	1.1691	0.9625	0.8704	1.2321	0.9509
2SRLCH-10AU	1.0000	1.0000	1.0000	0.9675	1.0597	0.9876	0.9343	1.1240	0.9768	0.9017	1.1920	0.9649	0.8691	1.2653	0.9540
2SRLCH-15AU	1.0000	1.0000	1.0000	0.9596	1.0625	0.9822	0.9171	1.1298	0.9638	0.8737	1.2024	0.9453	0.8275	1.2809	0.9266
2SRLCH-20AU	1.0000	1.0000	1.0000	0.9671	1.0580	0.9860	0.9330	1.1202	0.9723	0.8977	1.1861	0.9576	0.8612	1.2558	0.9433
2SRLCH-30AU	1.0000	1.0000	1.0000	0.9651	1.0591	0.9848	0.9285	1.1228	0.9704	0.8907	1.1907	0.9561	0.8519	1.2637	0.9408
2SRLCH-40AU	1.0000	1.0000	1.0000	0.9677	1.0536	0.9877	0.9348	1.1101	0.9757	0.9019	1.1699	0.9642	0.8684	1.2329	0.9530
2SRLCH-50AU	1.0000	1.0000	1.0000	0.9674	1.0547	0.9875	0.9344	1.1123	0.9755	0.9012	1.1732	0.9639	0.8676	1.2377	0.9531
2SRLCH-60AU	1.0000	1.0000	1.0000	0.9683	1.0534	0.9872	0.9360	1.1096	0.9814	0.9035	1.1691	0.9625	0.8704	1.2321	0.9509
4SRLCH-60AU	1.0000	1.0000	1.0000	0.9651	1.0591	0.9848	0.9285	1.1228	0.9704	0.8907	1.1907	0.9561	0.8519	1.2637	0.9408
4SRLCH-80AU	1.0000	1.0000	1.0000	0.9677	1.0536	0.9877	0.9348	1.1101	0.9757	0.9019	1.1699	0.9642	0.8684	1.2329	0.9530
4SRLCH-100AU	1.0000	1.0000	1.0000	0.9674	1.0547	0.9875	0.9344	1.1123	0.9755	0.9012	1.1732	0.9639	0.8676	1.2377	0.9531
4SRLCH-120AU	1.0000	1.0000	1.0000	0.9683	1.0534	0.9872	0.9360	1.1096	0.9814	0.9035	1.1691	0.9625	0.8704	1.2321	0.9509

NOTE

- 1MBH = 1000 Btu/hr
- QE = Actual Cooling Capacity
- WC = Compressor Motor Power Input (380V,3ϕ,50HZ)
- QC = Condenser Total Heat Rejection
- All above data are based on standard condtion (refer to page 7).
- Interpolation is allowed but extrapolation outside table boundary is not allowed. Contact Saran MFG group for operating conditions outside table boundary.
- The above data is subject to change without notice.

Performance Data (Cont.)

Table 9a: Performance Data (Reciprocating Compressor) - R22

Models	Evaporator Leaving Water Temperature														
	42°F			43°F			44°F			45°F			46°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH
1SRLCR-5AU	49	4.4	63	50	4.4	64	51	4.5	66	52	4.5	67	53	4.5	68
1SRLCR-7.5AU	74	6.7	96	76	6.7	98	77	6.7	99	79	6.8	101	81	6.8	103
1SRLCR-10AU	100	8.3	127	102	8.4	129	104	8.4	132	107	8.5	134	109	8.5	137
1SRLCR-15AU	138	11.7	176	141	11.7	179	144	11.8	183	148	11.9	186	151	12.0	190
1SRLCR-20AU	163	13.7	207	166	13.8	211	170	13.8	215	174	13.9	219	177	14.0	223
1SRLCR-25AU	216	18.3	276	221	18.4	281	226	18.6	286	231	18.7	291	236	18.8	297
1SRLCR-30AU	251	21.1	319	256	21.2	325	262	21.3	331	267	21.5	337	273	21.6	343
1SRLCR-35AU	325	27.8	415	332	28.0	422	339	28.1	430	346	28.3	438	354	28.4	446
1SRLCR-40AU	373	31.7	475	381	31.9	484	389	32.0	493	398	32.2	502	406	32.4	511
1SRLCR-50AU	448	38.4	573	458	38.6	583	468	38.8	594	478	39.0	605	489	39.2	616
1SRLCR-60AU	524	46.9	676	535	47.2	688	546	47.4	700	557	47.7	712	569	47.9	724
2SRLCR-10AU	98	8.8	126	100	8.9	129	102	8.9	131	104	9.0	134	107	9.0	136
2SRLCR-15AU	148	13.3	192	152	13.4	195	155	13.5	199	158	13.5	202	162	13.6	206
2SRLCR-20AU	200	16.7	254	204	16.8	258	209	16.9	263	213	17.0	268	218	17.1	273
2SRLCR-30AU	276	23.3	352	283	23.5	359	289	23.6	365	295	23.8	372	302	23.9	379
2SRLCR-40AU	325	27.3	414	333	27.5	422	340	27.7	430	347	27.8	438	355	28.0	446
2SRLCR-50AU	433	36.7	552	442	36.9	562	452	37.1	572	462	37.3	583	472	37.5	593
2SRLCR-60AU	502	42.2	638	512	42.5	650	524	42.7	662	535	42.9	674	546	43.1	686
2SRLCR-70AU	649	55.6	829	663	55.9	845	678	56.2	860	693	56.5	876	707	56.9	892
2SRLCR-80AU	745	63.3	951	762	63.7	968	778	64.1	986	795	64.4	1004	812	64.8	1022
2SRLCR-100AU	897	76.8	1146	916	77.2	1167	936	77.7	1188	957	78.1	1210	977	78.5	1231
2SRLCR-120AU	1048	93.8	1352	1070	94.3	1376	1092	94.9	1400	1115	95.4	1424	1137	95.9	1448
4SRLCR-80AU	651	54.7	828	665	55.0	843	680	55.4	859	695	55.7	875	710	56.0	891
4SRLCR-100AU	866	73.4	1103	885	73.8	1124	904	74.2	1144	923	74.6	1165	943	75.0	1186
4SRLCR-120AU	1003	84.5	1277	1025	84.9	1300	1047	85.4	1324	1070	85.8	1348	1092	86.3	1372
4SRLCR-140AU	1298	111.1	1659	1327	111.8	1689	1356	112.5	1720	1385	113.1	1752	1415	113.7	1784
4SRLCR-160AU	1490	126.7	1901	1523	127.4	1936	1556	128.1	1972	1590	128.8	2008	1624	129.5	2044
4SRLCR-200AU	1794	153.6	2292	1833	154.5	2334	1873	155.3	2376	1913	156.2	2419	1954	157.0	2463
4SRLCR-240AU	2097	187.6	2705	2140	188.7	2752	2185	189.7	2800	2229	190.7	2848	2275	191.7	2896

NOTE

- 1MBH = 1000 Btu/hr
- QE = Actual Cooling Capacity
- WC = Compressor Motor Power Input (380V,3ϕ,50HZ)
- QC = Condenser Total Heat Rejection
- All above data are based on standard condtion (refer to page 7).
- Interpolation is allowed but extrapolation outside table boundary is not allowed. Contact Saran MFG group for operating conditions outside table boundary.
- The above data is subject to change without notice.

Performance Data (Cont.)

Table 9b: Performance Correction Factors (Reciprocating Compressor) - R22

Models	Condensing Temperature											
	115°F			120°F			125°F			130°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH
1SRLCR-5AU	1.0377	0.9608	1.0208	1.0000	1.0000	1.0000	0.9631	1.0384	0.9797	0.9271	1.0761	0.9599
1SRLCR-7.5AU	1.0365	0.9585	1.0193	1.0000	1.0000	1.0000	0.9643	1.0410	0.9812	0.9294	1.0814	0.9629
1SRLCR-10AU	1.0348	0.9638	1.0201	1.0000	1.0000	1.0000	0.9652	1.0349	0.9797	0.9306	1.0685	0.9592
1SRLCR-15AU	1.0354	0.9640	1.0204	1.0000	1.0000	1.0000	0.9647	1.0347	0.9793	0.9294	1.0680	0.9584
1SRLCR-20AU	1.0344	0.9629	1.0195	1.0000	1.0000	1.0000	0.9657	1.0359	0.9803	0.9314	1.0707	0.9605
1SRLCR-25AU	1.0333	0.9614	1.0182	1.0000	1.0000	1.0000	0.9667	1.0376	0.9816	0.9335	1.0741	0.9631
1SRLCR-30AU	1.0327	0.9608	1.0177	1.0000	1.0000	1.0000	0.9673	1.0383	0.9822	0.9347	1.0757	0.9642
1SRLCR-35AU	1.0333	0.9602	1.0178	1.0000	1.0000	1.0000	0.9667	1.0389	0.9820	0.9335	1.0769	0.9639
1SRLCR-40AU	1.0333	0.9616	1.0182	1.0000	1.0000	1.0000	0.9667	1.0375	0.9816	0.9335	1.0739	0.9631
1SRLCR-50AU	1.0329	0.9612	1.0177	1.0000	1.0000	1.0000	0.9672	1.0379	0.9822	0.9344	1.0750	0.9642
1SRLCR-60AU	1.0334	0.9631	1.0180	1.0000	1.0000	1.0000	0.9664	1.0367	0.9819	0.9327	1.0734	0.9636
2SRLCR-10AU	1.0377	0.9608	1.0208	1.0000	1.0000	1.0000	0.9631	1.0384	0.9797	0.9271	1.0761	0.9599
2SRLCR-15AU	1.0365	0.9585	1.0193	1.0000	1.0000	1.0000	0.9643	1.0410	0.9812	0.9294	1.0814	0.9629
2SRLCR-20AU	1.0348	0.9638	1.0201	1.0000	1.0000	1.0000	0.9652	1.0349	0.9797	0.9306	1.0685	0.9592
2SRLCR-30AU	1.0354	0.9640	1.0204	1.0000	1.0000	1.0000	0.9647	1.0347	0.9793	0.9294	1.0680	0.9584
2SRLCR-40AU	1.0344	0.9629	1.0195	1.0000	1.0000	1.0000	0.9657	1.0359	0.9803	0.9314	1.0707	0.9605
2SRLCR-50AU	1.0333	0.9614	1.0182	1.0000	1.0000	1.0000	0.9667	1.0376	0.9816	0.9335	1.0741	0.9631
2SRLCR-60AU	1.0327	0.9608	1.0177	1.0000	1.0000	1.0000	0.9673	1.0383	0.9822	0.9347	1.0757	0.9642
2SRLCR-70AU	1.0333	0.9602	1.0178	1.0000	1.0000	1.0000	0.9667	1.0389	0.9820	0.9335	1.0769	0.9639
2SRLCR-80AU	1.0333	0.9616	1.0182	1.0000	1.0000	1.0000	0.9667	1.0375	0.9816	0.9335	1.0739	0.9631
2SRLCR-100AU	1.0329	0.9612	1.0177	1.0000	1.0000	1.0000	0.9672	1.0379	0.9822	0.9344	1.0750	0.9642
2SRLCR-120AU	1.0334	0.9631	1.0180	1.0000	1.0000	1.0000	0.9664	1.0367	0.9819	0.9327	1.0734	0.9636
4SRLCR-80AU	1.0344	0.9629	1.0195	1.0000	1.0000	1.0000	0.9657	1.0359	0.9803	0.9314	1.0707	0.9605
4SRLCR-100AU	1.0333	0.9614	1.0182	1.0000	1.0000	1.0000	0.9667	1.0376	0.9816	0.9335	1.0741	0.9631
4SRLCR-120AU	1.0327	0.9608	1.0177	1.0000	1.0000	1.0000	0.9673	1.0383	0.9822	0.9347	1.0757	0.9642
4SRLCR-140AU	1.0333	0.9602	1.0178	1.0000	1.0000	1.0000	0.9667	1.0389	0.9820	0.9335	1.0769	0.9639
4SRLCR-160AU	1.0333	0.9616	1.0182	1.0000	1.0000	1.0000	0.9667	1.0375	0.9816	0.9335	1.0739	0.9631
4SRLCR-200AU	1.0329	0.9612	1.0177	1.0000	1.0000	1.0000	0.9672	1.0379	0.9822	0.9344	1.0750	0.9642
4SRLCR-240AU	1.0334	0.9631	1.0180	1.0000	1.0000	1.0000	0.9664	1.0367	0.9819	0.9327	1.0734	0.9636

NOTE

- QE = Actual Cooling Capacity
- WC = Compressor Motor Power Input (380V,3ϕ,50HZ)
- QC = Condenser Total Heat Rejection
- Interpolation is allowed but extrapolation outside table boundary is not allowed. Contact Saran MFG group for operating conditions outside table boundary.
- The above data is subject to change without notice.

Performance Data (Cont.)

Table 10a: Performance Data (Reciprocating Compressor) - R407C

Models	Evaporator Leaving Water Temperature														
	42°F			43°F			44°F			45°F			46°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH
1SRLCR-5AU	47	4.3	61	48	4.4	62	49	4.4	64	51	4.4	65	52	4.5	66
1SRLCR-7.5AU	71	6.5	92	72	6.5	94	74	6.6	96	76	6.6	98	78	6.7	100
1SRLCR-10AU	91	7.9	117	93	7.9	119	96	8.0	121	98	8.0	124	100	8.1	126
1SRLCR-15AU	126	11.0	161	129	11.0	165	132	11.1	168	135	11.2	172	139	11.3	175
1SRLCR-20AU	149	12.9	190	152	13.0	194	156	13.1	198	160	13.1	202	164	13.2	206
1SRLCR-25AU	198	17.5	254	203	17.6	260	207	17.7	265	212	17.9	270	217	18.0	276
1SRLCR-30AU	233	20.5	300	239	20.6	306	244	20.8	312	250	20.9	318	256	21.1	324
1SRLCR-35AU	287	26.2	372	294	26.4	380	301	26.6	387	308	26.8	395	316	27.0	403
1SRLCR-40AU	339	30.8	438	347	31.0	447	355	31.2	456	363	31.5	465	371	31.7	474
1SRLCR-50AU	397	36.3	515	407	36.6	525	416	36.9	536	426	37.1	547	436	37.4	558
1SRLCR-60AU	493	46.1	642	504	46.4	655	516	46.7	667	528	47.0	680	540	47.3	693
2SRLCR-10AU	94	8.6	122	96	8.7	125	99	8.8	127	101	8.9	130	104	8.9	132
2SRLCR-15AU	141	13.0	183	145	13.1	187	148	13.2	191	152	13.3	195	156	13.4	199
2SRLCR-20AU	182	15.7	233	187	15.8	238	191	15.9	243	196	16.0	248	201	16.2	253
2SRLCR-30AU	252	21.9	323	258	22.1	330	264	22.2	337	271	22.4	344	277	22.6	351
2SRLCR-40AU	297	25.7	381	305	25.9	389	312	26.1	397	320	26.3	405	327	26.5	413
2SRLCR-50AU	395	34.9	509	405	35.2	519	415	35.5	530	425	35.7	541	435	36.0	552
2SRLCR-60AU	466	40.9	599	477	41.2	611	489	41.5	623	500	41.8	636	512	42.1	648
2SRLCR-70AU	574	52.4	744	588	52.8	759	602	53.2	775	617	53.6	790	631	54.0	806
2SRLCR-80AU	677	61.6	877	693	62.0	894	710	62.5	912	726	62.9	930	743	63.3	948
2SRLCR-100AU	795	72.7	1030	814	73.2	1051	833	73.8	1072	853	74.3	1094	873	74.8	1115
2SRLCR-120AU	986	92.2	1284	1009	92.8	1310	1032	93.4	1335	1056	94.1	1361	1080	94.7	1387
4SRLCR-80AU	595	51.5	762	609	51.9	778	624	52.2	793	639	52.6	810	654	52.9	826
4SRLCR-100AU	791	69.8	1017	810	70.4	1038	830	70.9	1060	850	71.5	1081	870	72.0	1103
4SRLCR-120AU	933	81.9	1198	955	82.5	1222	977	83.1	1247	1000	83.7	1272	1024	84.3	1297
4SRLCR-140AU	1148	104.7	1488	1176	105.6	1518	1204	106.4	1549	1233	107.2	1581	1262	108.0	1612
4SRLCR-160AU	1355	123.2	1754	1387	124.1	1789	1419	125.0	1824	1452	125.8	1860	1486	126.7	1897
4SRLCR-200AU	1589	145.3	2060	1627	146.4	2102	1666	147.5	2144	1705	148.6	2187	1746	149.6	2231
4SRLCR-240AU	1971	184.3	2569	2017	185.6	2619	2064	186.9	2670	2112	188.1	2722	2160	189.4	2774

NOTE

- 1MBH = 1000 Btu/hr
- QE = Actual Cooling Capacity
- WC = Compressor Motor Power Input (380V,3ϕ,50HZ)
- QC = Condenser Total Heat Rejection
- All above data are based on standard condtion (refer to page 7).
- Interpolation is allowed but extrapolation outside table boundary is not allowed. Contact Saran MFG group for operating conditions outside table boundary.
- The above data is subject to change without notice.

Performance Data (Cont.)

Table 10b: Performance Correction Factors (Reciprocating Compressor) - R407C

Models	Condensing Temperature											
	115°F			120°F			125°F			130°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
1SRLCR-5AU	1.0468	0.9700	1.0296	1.0000	1.0000	1.0000	0.9532	1.0278	0.9699	0.9063	1.0533	0.9392
1SRLCR-7.5AU	1.0459	0.9683	1.0285	1.0000	1.0000	1.0000	0.9541	1.0296	0.9710	0.9081	1.0571	0.9414
1SRLCR-10AU	1.0458	0.9682	1.0293	1.0000	1.0000	1.0000	0.9539	1.0292	0.9699	0.9074	1.0558	0.9390
1SRLCR-15AU	1.0466	0.9686	1.0299	1.0000	1.0000	1.0000	0.9530	1.0286	0.9692	0.9057	1.0545	0.9376
1SRLCR-20AU	1.0452	0.9672	1.0285	1.0000	1.0000	1.0000	0.9545	1.0303	0.9707	0.9086	1.0582	0.9405
1SRLCR-25AU	1.0429	0.9670	1.0265	1.0000	1.0000	1.0000	0.9569	1.0311	0.9730	0.9135	1.0602	0.9454
1SRLCR-30AU	1.0408	0.9649	1.0244	1.0000	1.0000	1.0000	0.9590	1.0335	0.9751	0.9178	1.0655	0.9497
1SRLCR-35AU	1.0428	0.9637	1.0252	1.0000	1.0000	1.0000	0.9567	1.0342	0.9739	0.9129	1.0662	0.9470
1SRLCR-40AU	1.0408	0.9626	1.0235	1.0000	1.0000	1.0000	0.9587	1.0356	0.9758	0.9170	1.0694	0.9509
1SRLCR-50AU	1.0422	0.9643	1.0249	1.0000	1.0000	1.0000	0.9573	1.0337	0.9743	0.9142	1.0653	0.9479
1SRLCR-60AU	1.0411	0.9646	1.0238	1.0000	1.0000	1.0000	0.9589	1.0342	0.9760	0.9178	1.0673	0.9517
2SRLCR-10AU	1.0468	0.9700	1.0296	1.0000	1.0000	1.0000	0.9532	1.0278	0.9699	0.9063	1.0533	0.9392
2SRLCR-15AU	1.0459	0.9683	1.0285	1.0000	1.0000	1.0000	0.9541	1.0296	0.9710	0.9081	1.0571	0.9414
2SRLCR-20AU	1.0458	0.9682	1.0293	1.0000	1.0000	1.0000	0.9539	1.0292	0.9699	0.9074	1.0558	0.9390
2SRLCR-30AU	1.0466	0.9686	1.0299	1.0000	1.0000	1.0000	0.9530	1.0286	0.9692	0.9057	1.0545	0.9376
2SRLCR-40AU	1.0452	0.9672	1.0285	1.0000	1.0000	1.0000	0.9545	1.0303	0.9707	0.9086	1.0582	0.9405
2SRLCR-50AU	1.0429	0.9670	1.0265	1.0000	1.0000	1.0000	0.9569	1.0311	0.9730	0.9135	1.0602	0.9454
2SRLCR-60AU	1.0408	0.9649	1.0244	1.0000	1.0000	1.0000	0.9590	1.0335	0.9751	0.9178	1.0655	0.9497
2SRLCR-70AU	1.0428	0.9637	1.0252	1.0000	1.0000	1.0000	0.9567	1.0342	0.9739	0.9129	1.0662	0.9470
2SRLCR-80AU	1.0408	0.9626	1.0235	1.0000	1.0000	1.0000	0.9587	1.0356	0.9758	0.9170	1.0694	0.9509
2SRLCR-100AU	1.0422	0.9643	1.0249	1.0000	1.0000	1.0000	0.9573	1.0337	0.9743	0.9142	1.0653	0.9479
2SRLCR-120AU	1.0411	0.9646	1.0238	1.0000	1.0000	1.0000	0.9589	1.0342	0.9760	0.9178	1.0673	0.9517
4SRLCR-80AU	1.0452	0.9672	1.0285	1.0000	1.0000	1.0000	0.9545	1.0303	0.9707	0.9086	1.0582	0.9405
4SRLCR-100AU	1.0429	0.9670	1.0265	1.0000	1.0000	1.0000	0.9569	1.0311	0.9730	0.9135	1.0602	0.9454
4SRLCR-120AU	1.0408	0.9649	1.0244	1.0000	1.0000	1.0000	0.9590	1.0335	0.9751	0.9178	1.0655	0.9497
4SRLCR-140AU	1.0428	0.9637	1.0252	1.0000	1.0000	1.0000	0.9567	1.0342	0.9739	0.9129	1.0662	0.9470
4SRLCR-160AU	1.0408	0.9626	1.0235	1.0000	1.0000	1.0000	0.9587	1.0356	0.9758	0.9170	1.0694	0.9509
4SRLCR-200AU	1.0422	0.9643	1.0249	1.0000	1.0000	1.0000	0.9573	1.0337	0.9743	0.9142	1.0653	0.9479
4SRLCR-240AU	1.0411	0.9646	1.0238	1.0000	1.0000	1.0000	0.9589	1.0342	0.9760	0.9178	1.0673	0.9517

NOTE

- QE = Actual Cooling Capacity
- WC = Compressor Motor Power Input (380V,3ϕ,50HZ)
- QC = Condenser Total Heat Rejection
- Interpolation is allowed but extrapolation outside table boundary is not allowed. Contact Saran MFG group for operating conditions outside table boundary.
- The above data is subject to change without notice.

Performance Data (Cont.)

Table 11a: Performance Data (Reciprocating Compressor) - R134a

Models	Evaporator Leaving Water Temperature														
	42°F			43°F			44°F			45°F			46°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH
1SRLCR-5AU	49	4.3	63	50	4.4	64	51	4.4	66	53	4.4	67	54	4.5	68
1SRLCR-7.5AU	64	5.4	81	65	5.5	83	67	5.5	85	68	5.6	87	70	5.6	88
1SRLCR-10AU	88	7.3	111	90	7.4	114	92	7.4	116	95	7.5	119	97	7.6	122
1SRLCR-15AU	104	8.7	132	106	8.7	135	109	8.8	138	112	8.9	141	115	9.0	144
1SRLCR-20AU	140	11.8	178	143	11.9	181	146	12.0	185	150	12.1	189	153	12.2	193
1SRLCR-25AU	157	13.6	201	160	13.8	205	164	13.9	209	168	14.0	214	172	14.1	218
1SRLCR-30AU	206	17.6	263	211	17.8	269	216	17.9	274	221	18.1	280	227	18.2	286
1SRLCR-35AU	236	20.7	303	241	20.9	309	247	21.1	315	253	21.2	322	259	21.4	328
1SRLCR-40AU	284	25.0	365	291	25.2	373	298	25.4	380	305	25.6	388	312	25.8	396
1SRLCR-50AU	323	30.3	421	330	30.6	430	338	30.9	438	346	31.2	448	355	31.5	457
1SRLCR-60AU	379	35.7	495	388	36.0	505	397	36.4	515	407	36.7	526	416	37.1	536
2SRLCR-10AU	97	8.7	126	100	8.7	128	102	8.8	131	105	8.9	134	108	9.0	137
2SRLCR-15AU	127	10.8	162	130	10.9	166	134	11.0	169	137	11.1	173	140	11.2	177
2SRLCR-20AU	176	14.6	223	180	14.7	228	185	14.8	233	189	15.0	238	194	15.1	243
2SRLCR-30AU	208	17.3	264	213	17.5	269	218	17.6	275	224	17.8	281	229	17.9	287
2SRLCR-40AU	279	23.6	356	286	23.8	363	293	24.0	370	300	24.1	378	307	24.3	386
2SRLCR-50AU	313	27.3	402	321	27.5	410	329	27.8	419	337	28.0	427	345	28.3	436
2SRLCR-60AU	412	35.3	526	422	35.6	537	432	35.9	548	443	36.2	560	453	36.5	571
2SRLCR-70AU	471	41.4	605	483	41.8	618	494	42.1	631	506	42.5	644	518	42.9	657
2SRLCR-80AU	568	50.0	730	582	50.4	745	596	50.8	761	610	51.2	776	624	51.7	792
2SRLCR-100AU	645	60.6	842	661	61.2	859	677	61.8	877	693	62.4	895	709	62.9	913
2SRLCR-120AU	758	71.4	989	776	72.1	1010	794	72.8	1030	813	73.4	1051	832	74.1	1073
4SRLCR-80AU	558	47.1	711	572	47.5	726	586	47.9	741	599	48.3	756	614	48.7	771
4SRLCR-100AU	626	54.5	803	642	55.0	820	657	55.5	837	673	56.0	855	689	56.5	873
4SRLCR-120AU	824	70.5	1052	844	71.2	1075	864	71.8	1097	885	72.4	1120	906	73.0	1143
4SRLCR-140AU	942	82.8	1211	965	83.5	1236	988	84.3	1261	1012	85.0	1287	1035	85.7	1313
4SRLCR-160AU	1137	99.9	1461	1164	100.8	1491	1192	101.6	1521	1220	102.5	1552	1248	103.3	1583
4SRLCR-200AU	1290	121.2	1683	1321	122.4	1718	1353	123.6	1754	1386	124.7	1790	1419	125.9	1827
4SRLCR-240AU	1515	142.8	1978	1552	144.2	2019	1589	145.5	2061	1626	146.9	2103	1665	148.2	2145

NOTE

- 1MBH = 1000 Btu/hr
- QE = Actual Cooling Capacity
- WC = Compressor Motor Power Input (380V,3ϕ,50HZ)
- QC = Condenser Total Heat Rejection
- All above data are based on standard condtion (refer to page 7).
- Interpolation is allowed but extrapolation outside table boundary is not allowed. Contact Saran MFG group for operating conditions outside table boundary.
- The above data is subject to change without notice.

Performance Data (Cont.)

Table 11b: Performance Correction Factors (Reciprocating Compressor) - R134a

Models	120°F			125°F			130°F			135°F			140°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
1SRLCR-5AU	1.0000	1.0000	1.0000	0.9567	1.0309	0.9729	0.9135	1.0596	0.9453	0.8703	1.0861	0.9173	0.8271	1.1102	0.8888
1SRLCR-7.5AU	1.0000	1.0000	1.0000	0.9532	1.0303	0.9695	0.9066	1.0579	0.9385	0.8603	1.0829	0.9073	0.8144	1.1051	0.8757
1SRLCR-10AU	1.0000	1.0000	1.0000	0.9522	1.0276	0.9678	0.9046	1.0527	0.9352	0.8573	1.0755	0.9024	0.8104	1.0957	0.8694
1SRLCR-15AU	1.0000	1.0000	1.0000	0.9539	1.0289	0.9695	0.9080	1.0558	0.9387	0.8624	1.0808	0.9078	0.8172	1.1039	0.8768
1SRLCR-20AU	1.0000	1.0000	1.0000	0.9592	1.0324	0.9745	0.9183	1.0631	0.9486	0.8772	1.0920	0.9223	0.8361	1.1191	0.8954
1SRLCR-25AU	1.0000	1.0000	1.0000	0.9556	1.0297	0.9716	0.9111	1.0575	0.9426	0.8665	1.0832	0.9131	0.8220	1.1069	0.8832
1SRLCR-30AU	1.0000	1.0000	1.0000	0.9586	1.0316	0.9741	0.9171	1.0611	0.9476	0.8755	1.0885	0.9206	0.8338	1.1138	0.8932
1SRLCR-35AU	1.0000	1.0000	1.0000	0.9586	1.0305	0.9741	0.9171	1.0588	0.9478	0.8756	1.0850	0.9209	0.8342	1.1090	0.8937
1SRLCR-40AU	1.0000	1.0000	1.0000	0.9593	1.0301	0.9746	0.9185	1.0581	0.9487	0.8777	1.0842	0.9224	0.8370	1.1082	0.8957
1SRLCR-50AU	1.0000	1.0000	1.0000	0.9588	1.0238	0.9736	0.9176	1.0462	0.9470	0.8764	1.0672	0.9200	0.8354	1.0871	0.8929
1SRLCR-60AU	1.0000	1.0000	1.0000	0.9583	1.0243	0.9734	0.9166	1.0469	0.9464	0.8750	1.0679	0.9191	0.8334	1.0876	0.8916
2SRLCR-10AU	1.0000	1.0000	1.0000	0.9567	1.0309	0.9729	0.9135	1.0596	0.9453	0.8703	1.0861	0.9173	0.8271	1.1102	0.8888
2SRLCR-15AU	1.0000	1.0000	1.0000	0.9532	1.0303	0.9695	0.9066	1.0579	0.9385	0.8603	1.0829	0.9073	0.8144	1.1051	0.8757
2SRLCR-20AU	1.0000	1.0000	1.0000	0.9522	1.0276	0.9678	0.9046	1.0527	0.9352	0.8573	1.0755	0.9024	0.8104	1.0957	0.8694
2SRLCR-30AU	1.0000	1.0000	1.0000	0.9539	1.0289	0.9695	0.9080	1.0558	0.9387	0.8624	1.0808	0.9078	0.8172	1.1039	0.8768
2SRLCR-40AU	1.0000	1.0000	1.0000	0.9592	1.0324	0.9745	0.9183	1.0631	0.9486	0.8772	1.0920	0.9223	0.8361	1.1191	0.8954
2SRLCR-50AU	1.0000	1.0000	1.0000	0.9556	1.0297	0.9716	0.9111	1.0575	0.9426	0.8665	1.0832	0.9131	0.8220	1.1069	0.8832
2SRLCR-60AU	1.0000	1.0000	1.0000	0.9586	1.0316	0.9741	0.9171	1.0611	0.9476	0.8755	1.0885	0.9206	0.8338	1.1138	0.8932
2SRLCR-70AU	1.0000	1.0000	1.0000	0.9586	1.0305	0.9741	0.9171	1.0588	0.9478	0.8756	1.0850	0.9209	0.8342	1.1090	0.8937
2SRLCR-80AU	1.0000	1.0000	1.0000	0.9593	1.0301	0.9746	0.9185	1.0581	0.9487	0.8777	1.0842	0.9224	0.8370	1.1082	0.8957
2SRLCR-100AU	1.0000	1.0000	1.0000	0.9588	1.0238	0.9736	0.9176	1.0462	0.9470	0.8764	1.0672	0.9200	0.8354	1.0871	0.8929
2SRLCR-120AU	1.0000	1.0000	1.0000	0.9583	1.0243	0.9734	0.9166	1.0469	0.9464	0.8750	1.0679	0.9191	0.8334	1.0876	0.8916
4SRLCR-80AU	1.0000	1.0000	1.0000	0.9592	1.0324	0.9745	0.9183	1.0631	0.9486	0.8772	1.0920	0.9223	0.8361	1.1191	0.8954
4SRLCR-100AU	1.0000	1.0000	1.0000	0.9556	1.0297	0.9716	0.9111	1.0575	0.9426	0.8665	1.0832	0.9131	0.8220	1.1069	0.8832
4SRLCR-120AU	1.0000	1.0000	1.0000	0.9586	1.0316	0.9741	0.9171	1.0611	0.9476	0.8755	1.0885	0.9206	0.8338	1.1138	0.8932
4SRLCR-140AU	1.0000	1.0000	1.0000	0.9586	1.0305	0.9741	0.9171	1.0588	0.9478	0.8756	1.0850	0.9209	0.8342	1.1090	0.8937
4SRLCR-160AU	1.0000	1.0000	1.0000	0.9593	1.0301	0.9746	0.9185	1.0581	0.9487	0.8777	1.0842	0.9224	0.8370	1.1082	0.8957
4SRLCR-200AU	1.0000	1.0000	1.0000	0.9588	1.0238	0.9736	0.9176	1.0462	0.9470	0.8764	1.0672	0.9200	0.8354	1.0871	0.8929
4SRLCR-240AU	1.0000	1.0000	1.0000	0.9583	1.0243	0.9734	0.9166	1.0469	0.9464	0.8750	1.0679	0.9191	0.8334	1.0876	0.8916

NOTE

- QE = Actual Cooling Capacity
- WC = Compressor Motor Power Input (380V,3ϕ,50HZ)
- QC = Condenser Total Heat Rejection
- Interpolation is allowed but extrapolation outside table boundary is not allowed. Contact Saran MFG group for operating conditions outside table boundary.
- The above data is subject to change without notice.

Performance Data (Cont.)

Table 12a: Performance Data (Screw Compressor) - R22

Models	Evaporator Leaving Water Temperature														
	42°F			43°F			44°F			45°F			46°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH
1SRLCS-50AU	379	35.9	489	387	36.0	498	395	36.2	506	403	36.4	515	411	36.6	524
1SRLCS-60AU	476	44.5	613	486	44.7	623	496	45.0	634	506	45.2	645	516	45.4	656
1SRLCS-70AU	548	53.4	712	560	53.6	724	571	53.8	736	583	54.1	749	595	54.3	761
1SRLCS-80AU	633	60.0	817	646	60.2	831	659	60.4	845	673	60.7	859	686	61.0	873
1SRLCS-90AU	769	69.3	982	784	69.5	998	800	69.8	1014	816	70.0	1031	832	70.3	1047
1SRLCS-110AU	911	83.2	1166	930	83.5	1186	949	83.8	1206	968	84.1	1227	988	84.4	1247
1SRLCS-125AU	1038	94.8	1329	1060	95.1	1352	1082	95.5	1375	1104	95.8	1398	1126	96.2	1422
1SRLCS-140AU	1239	114.7	1592	1264	115.1	1618	1289	115.6	1644	1314	116.1	1671	1340	116.6	1698
1SRLCS-160AU	1389	122.6	1765	1417	123.2	1795	1446	123.8	1826	1475	124.4	1857	1505	125.0	1888
1SRLCS-180AU	1619	139.6	2047	1652	140.2	2082	1685	140.9	2118	1719	141.6	2154	1753	142.3	2190
1SRLCS-210AU	1904	160.7	2398	1944	161.3	2439	1984	162.0	2481	2025	162.7	2524	2066	163.5	2568
2SRLCS-100AU	758	71.7	979	774	72.1	996	790	72.5	1013	806	72.8	1030	823	73.1	1048
2SRLCS-120AU	952	89.0	1225	972	89.5	1246	992	89.9	1268	1012	90.3	1290	1033	90.8	1312
2SRLCS-140AU	1096	106.8	1425	1119	107.2	1448	1142	107.7	1473	1165	108.1	1497	1189	108.5	1522
2SRLCS-160AU	1266	119.9	1634	1292	120.4	1662	1318	120.9	1690	1345	121.4	1718	1372	121.9	1747
2SRLCS-180AU	1538	138.5	1964	1569	139.0	1996	1600	139.5	2028	1631	140.0	2061	1663	140.5	2095
2SRLCS-220AU	1822	166.3	2333	1860	166.9	2372	1898	167.5	2412	1937	168.2	2453	1976	168.8	2495
2SRLCS-250AU	2076	189.6	2659	2119	190.2	2704	2163	190.9	2749	2207	191.6	2796	2252	192.4	2843
2SRLCS-280AU	2479	229.3	3183	2528	230.3	3235	2578	231.2	3288	2629	232.2	3342	2680	233.1	3396
4SRLCS-200AU	1517	143.5	1957	1548	144.2	1991	1580	144.9	2025	1613	145.6	2060	1646	146.3	2095
4SRLCS-240AU	1904	178.0	2450	1943	178.9	2493	1983	179.8	2536	2024	180.7	2579	2066	181.5	2623
4SRLCS-280AU	2193	213.6	2849	2238	214.5	2897	2284	215.3	2946	2331	216.2	2995	2378	217.1	3045
4SRLCS-320AU	2532	239.8	3269	2584	240.8	3323	2637	241.8	3379	2690	242.8	3436	2745	243.8	3493
4SRLCS-360AU	3077	277.0	3927	3138	278.0	3992	3200	279.0	4057	3263	280.0	4123	3326	281.1	4189

NOTE

- 1MBH = 1000 Btu/hr
- QE = Actual Cooling Capacity
- WC = Compressor Motor Power Input (380V,3ϕ,50HZ)
- QC = Condenser Total Heat Rejection
- All above data are based on standard condtion (refer to page 7).
- Interpolation is allowed but extrapolation outside table boundary is not allowed. Contact Saran MFG group for operating conditions outside table boundary.
- The above data is subject to change without notice.

Performance Data (Cont.)

Table 12b: Performance Correction Factors (Screw Compressor) - R22

Models	Condensing Temprature											
	115°F			120°F			125°F			130°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
1SRLCS-50AU	1.0338	0.9479	1.0149	1.0000	1.0000	1.0000	0.9658	1.0552	0.9854	0.9310	1.1136	0.9711
1SRLCS-60AU	1.0337	0.9479	1.0150	1.0000	1.0000	1.0000	0.9659	1.0552	0.9854	0.9312	1.1136	0.9710
1SRLCS-70AU	1.0409	0.9499	1.0205	1.0000	1.0000	1.0000	0.9571	1.0530	0.9786	0.9121	1.1089	0.9563
1SRLCS-80AU	1.0430	0.9521	1.0231	1.0000	1.0000	1.0000	0.9552	1.0505	0.9761	0.9086	1.1034	0.9514
1SRLCS-90AU	1.0383	0.9502	1.0197	1.0000	1.0000	1.0000	0.9599	1.0525	0.9795	0.9178	1.1076	0.9579
1SRLCS-110AU	1.0415	0.9484	1.0216	1.0000	1.0000	1.0000	0.9575	1.0570	0.9787	0.9141	1.1193	0.9579
1SRLCS-125AU	1.0415	0.9484	1.0216	1.0000	1.0000	1.0000	0.9575	1.0570	0.9787	0.9141	1.1193	0.9579
1SRLCS-140AU	1.0364	0.9550	1.0188	1.0000	1.0000	1.0000	0.9608	1.0477	0.9796	0.9187	1.0979	0.9574
1SRLCS-160AU	1.0360	0.9529	1.0187	1.0000	1.0000	1.0000	0.9617	1.0503	0.9802	0.9210	1.1037	0.9590
1SRLCS-180AU	1.0352	0.9529	1.0184	1.0000	1.0000	1.0000	0.9626	1.0502	0.9805	0.9228	1.1036	0.9598
1SRLCS-210AU	1.0332	0.9540	1.0173	1.0000	1.0000	1.0000	0.9657	1.0502	0.9827	0.9304	1.1047	0.9653
2SRLCS-100AU	1.0338	0.9479	1.0149	1.0000	1.0000	1.0000	0.9658	1.0552	0.9854	0.9310	1.1136	0.9711
2SRLCS-120AU	1.0337	0.9479	1.0150	1.0000	1.0000	1.0000	0.9659	1.0552	0.9854	0.9312	1.1136	0.9710
2SRLCS-140AU	1.0409	0.9499	1.0205	1.0000	1.0000	1.0000	0.9571	1.0530	0.9786	0.9121	1.1089	0.9563
2SRLCS-160AU	1.0430	0.9521	1.0231	1.0000	1.0000	1.0000	0.9552	1.0505	0.9761	0.9086	1.1034	0.9514
2SRLCS-180AU	1.0383	0.9502	1.0197	1.0000	1.0000	1.0000	0.9599	1.0525	0.9795	0.9178	1.1076	0.9579
2SRLCS-220AU	1.0415	0.9484	1.0216	1.0000	1.0000	1.0000	0.9575	1.0570	0.9787	0.9141	1.1193	0.9579
2SRLCS-250AU	1.0415	0.9484	1.0216	1.0000	1.0000	1.0000	0.9575	1.0570	0.9787	0.9141	1.1193	0.9579
2SRLCS-280AU	1.0364	0.9550	1.0188	1.0000	1.0000	1.0000	0.9608	1.0477	0.9796	0.9187	1.0979	0.9574
4SRLCS-200AU	1.0338	0.9479	1.0149	1.0000	1.0000	1.0000	0.9658	1.0552	0.9854	0.9310	1.1136	0.9711
4SRLCS-240AU	1.0337	0.9479	1.0150	1.0000	1.0000	1.0000	0.9659	1.0552	0.9854	0.9312	1.1136	0.9710
4SRLCS-280AU	1.0409	0.9499	1.0205	1.0000	1.0000	1.0000	0.9571	1.0530	0.9786	0.9121	1.1089	0.9563
4SRLCS-320AU	1.0430	0.9521	1.0231	1.0000	1.0000	1.0000	0.9552	1.0505	0.9761	0.9086	1.1034	0.9514
4SRLCS-360AU	1.0383	0.9502	1.0197	1.0000	1.0000	1.0000	0.9599	1.0525	0.9795	0.9178	1.1076	0.9579

NOTE

- QE = Actual Cooling Capacity
- WC = Compressor Motor Power Input (380V,3ϕ,50HZ)
- QC = Condenser Total Heat Rejection
- Interpolation is allowed but extrapolation outside table boundary is not allowed. Contact Saran MFG group for operating conditions outside table boundary.
- The above data is subject to change without notice.

Performance Data (Cont.)

Table 13a: Performance Data (Screw Compressor) - R407C

Models	Evaporator Leaving Water Temperature														
	42°F			43°F			44°F			45°F			46°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH
1SRLCS-50AU	369	35.2	481	377	35.4	489	386	35.5	498	394	35.7	508	403	35.9	517
1SRLCS-60AU	463	43.7	602	474	43.9	613	484	44.1	624	495	44.3	636	506	44.5	647
1SRLCS-70AU	537	50.7	698	549	50.9	711	562	51.1	724	575	51.2	737	588	51.4	751
1SRLCS-80AU	609	57.0	789	623	57.3	804	637	57.6	819	651	57.9	835	666	58.2	851
1SRLCS-90AU	708	65.8	916	723	66.0	933	739	66.3	949	755	66.5	966	772	66.8	984
1SRLCS-110AU	892	82.6	1154	912	82.9	1175	931	83.3	1196	951	83.6	1217	972	83.9	1238
1SRLCS-125AU	1017	94.1	1316	1039	94.5	1339	1062	94.9	1363	1085	95.3	1387	1108	95.7	1412
1SRLCS-140AU	1175	107.5	1516	1200	107.9	1543	1226	108.4	1570	1253	108.8	1598	1280	109.3	1627
1SRLCS-160AU	1310	121.1	1695	1339	121.6	1725	1369	122.0	1756	1399	122.4	1788	1430	122.8	1820
1SRLCS-180AU	1571	135.7	2001	1606	136.1	2038	1642	136.6	2075	1678	137.1	2113	1715	137.5	2151
1SRLCS-210AU	1751	151.4	2232	1790	151.7	2271	1829	152.0	2312	1869	152.4	2353	1910	152.7	2394
2SRLCS-100AU	738	70.5	961	754	70.8	979	771	71.1	997	788	71.4	1015	806	71.7	1034
2SRLCS-120AU	926	87.5	1204	947	87.8	1226	968	88.2	1248	990	88.6	1271	1012	89.0	1295
2SRLCS-140AU	1074	101.4	1396	1099	101.8	1422	1124	102.1	1448	1150	102.4	1475	1176	102.8	1502
2SRLCS-160AU	1217	113.9	1579	1245	114.5	1608	1274	115.1	1639	1303	115.7	1670	1332	116.3	1701
2SRLCS-180AU	1415	131.6	1833	1446	132.0	1865	1478	132.5	1899	1511	133.0	1933	1544	133.5	1967
2SRLCS-220AU	1784	165.2	2309	1823	165.9	2349	1863	166.5	2391	1903	167.2	2433	1944	167.9	2476
2SRLCS-250AU	2034	188.3	2632	2079	189.0	2678	2124	189.8	2726	2169	190.6	2774	2216	191.4	2823
2SRLCS-280AU	2350	215.0	3032	2401	215.9	3086	2453	216.7	3141	2506	217.6	3196	2560	218.5	3253
4SRLCS-200AU	1475	141.0	1922	1508	141.6	1958	1542	142.2	1994	1577	142.8	2030	1612	143.4	2067
4SRLCS-240AU	1852	174.9	2407	1894	175.7	2452	1937	176.4	2497	1980	177.2	2543	2025	178.0	2589
4SRLCS-280AU	2148	202.9	2791	2197	203.5	2843	2248	204.2	2896	2299	204.9	2950	2352	205.6	3004
4SRLCS-320AU	2434	227.9	3157	2490	229.0	3217	2547	230.2	3278	2605	231.4	3339	2664	232.7	3402
4SRLCS-360AU	2830	263.1	3665	2893	264.1	3731	2957	265.1	3798	3021	266.1	3866	3087	267.1	3935

NOTE

- 1MBH = 1000 Btu/hr
- QE = Actual Cooling Capacity
- WC = Compressor Motor Power Input (380V,3ϕ,50HZ)
- QC = Condenser Total Heat Rejection
- All above data are based on standard condtion (refer to page 7).
- Interpolation is allowed but extrapolation outside table boundary is not allowed. Contact Saran MFG group for operating conditions outside table boundary.
- The above data is subject to change without notice.

Performance Data (Cont.)

Table 13b: Performance Correction Factors (Screw Compressor) - R407C

Models	Condensing Temprature											
	115°F			120°F			125°F			130°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
1SRLCS-50AU	1.0470	0.9473	1.0244	1.0000	1.0000	1.0000	0.9508	1.0558	0.9746	0.8993	1.1146	0.9481
1SRLCS-60AU	1.0466	0.9473	1.0243	1.0000	1.0000	1.0000	0.9512	1.0557	0.9747	0.9002	1.1146	0.9483
1SRLCS-70AU	1.0504	0.9484	1.0276	1.0000	1.0000	1.0000	0.9486	1.0552	0.9725	0.8965	1.1140	0.9452
1SRLCS-80AU	1.0530	0.9538	1.0309	1.0000	1.0000	1.0000	0.9463	1.0494	0.9693	0.8920	1.1021	0.9389
1SRLCS-90AU	1.0496	0.9474	1.0269	1.0000	1.0000	1.0000	0.9493	1.0561	0.9730	0.8976	1.1160	0.9460
1SRLCS-110AU	1.0440	0.9424	1.0215	1.0000	1.0000	1.0000	0.9548	1.0623	0.9785	0.9083	1.1294	0.9572
1SRLCS-125AU	1.0439	0.9424	1.0215	1.0000	1.0000	1.0000	0.9549	1.0623	0.9786	0.9086	1.1294	0.9574
1SRLCS-140AU	1.0437	0.9424	1.0215	1.0000	1.0000	1.0000	0.9551	1.0622	0.9786	0.9091	1.1294	0.9573
1SRLCS-160AU	1.0391	0.9415	1.0176	1.0000	1.0000	1.0000	0.9603	1.0633	0.9830	0.9200	1.1317	0.9667
1SRLCS-180AU	1.0382	0.9427	1.0183	1.0000	1.0000	1.0000	0.9611	1.0620	0.9822	0.9217	1.1291	0.9650
1SRLCS-210AU	1.0432	0.9458	1.0229	1.0000	1.0000	1.0000	0.9559	1.0579	0.9772	0.9111	1.1196	0.9546
2SRLCS-100AU	1.0470	0.9473	1.0244	1.0000	1.0000	1.0000	0.9508	1.0558	0.9746	0.8993	1.1146	0.9481
2SRLCS-120AU	1.0466	0.9473	1.0243	1.0000	1.0000	1.0000	0.9512	1.0557	0.9747	0.9002	1.1146	0.9483
2SRLCS-140AU	1.0504	0.9484	1.0276	1.0000	1.0000	1.0000	0.9486	1.0552	0.9725	0.8965	1.1140	0.9452
2SRLCS-160AU	1.0530	0.9538	1.0309	1.0000	1.0000	1.0000	0.9463	1.0494	0.9693	0.8920	1.1021	0.9389
2SRLCS-180AU	1.0496	0.9474	1.0269	1.0000	1.0000	1.0000	0.9493	1.0561	0.9730	0.8976	1.1160	0.9460
2SRLCS-220AU	1.0440	0.9424	1.0215	1.0000	1.0000	1.0000	0.9548	1.0623	0.9785	0.9083	1.1294	0.9572
2SRLCS-250AU	1.0439	0.9424	1.0215	1.0000	1.0000	1.0000	0.9549	1.0623	0.9786	0.9086	1.1294	0.9574
2SRLCS-280AU	1.0437	0.9424	1.0215	1.0000	1.0000	1.0000	0.9551	1.0622	0.9786	0.9091	1.1294	0.9573
4SRLCS-200AU	1.0470	0.9473	1.0244	1.0000	1.0000	1.0000	0.9508	1.0558	0.9746	0.8993	1.1146	0.9481
4SRLCS-240AU	1.0466	0.9473	1.0243	1.0000	1.0000	1.0000	0.9512	1.0557	0.9747	0.9002	1.1146	0.9483
4SRLCS-280AU	1.0504	0.9484	1.0276	1.0000	1.0000	1.0000	0.9486	1.0552	0.9725	0.8965	1.1140	0.9452
4SRLCS-320AU	1.0530	0.9538	1.0309	1.0000	1.0000	1.0000	0.9463	1.0494	0.9693	0.8920	1.1021	0.9389
4SRLCS-360AU	1.0496	0.9474	1.0269	1.0000	1.0000	1.0000	0.9493	1.0561	0.9730	0.8976	1.1160	0.9460

NOTE

- QE = Actual Cooling Capacity
- WC = Compressor Motor Power Input (380V,3ϕ,50HZ)
- QC = Condenser Total Heat Rejection
- Interpolation is allowed but extrapolation outside table boundary is not allowed. Contact Saran MFG group for operating conditions outside table boundary.
- The above data is subject to change without notice.

Performance Data (Cont.)

Table 14a: Performance Data (Screw Compressor) - R134a

Models	Evaporator Leaving Water Temperature														
	42°F			43°F			44°F			45°F			46°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH
1SRLCS-50AU	367	32.6	473	376	32.7	482	385	32.9	492	395	33.0	502	404	33.1	512
1SRLCS-60AU	433	37.6	555	443	37.7	566	454	37.9	577	465	38.0	588	476	38.2	600
1SRLCS-70AU	498	42.7	636	510	42.9	649	522	43.0	662	535	43.2	675	548	43.4	688
1SRLCS-80AU	611	52.0	779	625	52.2	794	640	52.4	810	655	52.6	825	670	52.8	841
1SRLCS-90AU	704	59.3	896	720	59.5	913	737	59.7	931	755	59.9	949	772	60.1	967
1SRLCS-110AU	826	67.4	1044	845	67.6	1064	865	67.8	1085	885	68.1	1106	906	68.3	1127
1SRLCS-125AU	913	75.7	1158	934	76.0	1180	956	76.3	1203	978	76.5	1226	1000	76.8	1249
1SRLCS-140AU	1039	86.2	1319	1063	86.5	1344	1088	86.8	1369	1113	87.1	1395	1139	87.4	1422
1SRLCS-160AU	1232	100.8	1558	1260	101.0	1588	1289	101.3	1618	1319	101.6	1648	1349	101.9	1679
1SRLCS-180AU	1438	113.0	1804	1472	113.4	1839	1506	113.8	1875	1541	114.2	1911	1577	114.6	1948
1SRLCS-210AU	1657	131.4	2083	1695	131.8	2122	1734	132.2	2162	1773	132.6	2203	1812	133.0	2244
2SRLCS-100AU	734	65.2	946	752	65.5	965	771	65.7	984	789	66.0	1003	808	66.2	1023
2SRLCS-120AU	866	75.1	1109	887	75.4	1131	909	75.7	1154	931	76.0	1177	953	76.3	1200
2SRLCS-140AU	995	85.4	1272	1019	85.7	1297	1044	86.1	1323	1070	86.4	1350	1095	86.7	1376
2SRLCS-160AU	1221	104.0	1559	1250	104.4	1589	1280	104.8	1619	1310	105.1	1651	1340	105.5	1682
2SRLCS-180AU	1408	118.6	1792	1441	119.0	1827	1475	119.4	1862	1509	119.8	1898	1544	120.2	1934
2SRLCS-220AU	1652	134.7	2089	1691	135.2	2129	1730	135.7	2170	1770	136.1	2212	1811	136.6	2254
2SRLCS-250AU	1826	151.5	2317	1868	152.0	2361	1912	152.5	2406	1956	153.0	2452	2000	153.6	2498
2SRLCS-280AU	2078	172.4	2637	2127	173.0	2687	2176	173.6	2739	2226	174.2	2791	2277	174.8	2844
4SRLCS-200AU	1469	130.4	1891	1505	130.9	1929	1541	131.4	1967	1579	131.9	2006	1617	132.5	2046
4SRLCS-240AU	1732	150.3	2219	1774	150.8	2263	1817	151.4	2308	1861	152.0	2354	1906	152.6	2401
4SRLCS-280AU	1990	170.8	2544	2039	171.4	2595	2089	172.1	2646	2139	172.8	2699	2190	173.5	2753
4SRLCS-320AU	2443	208.1	3117	2501	208.8	3178	2560	209.5	3239	2620	210.3	3301	2681	211.0	3365
4SRLCS-360AU	2815	237.2	3584	2882	238.0	3653	2950	238.8	3724	3019	239.6	3796	3089	240.5	3868

NOTE

- 1MBH = 1000 Btu/hr
- QE = Actual Cooling Capacity
- WC = Compressor Motor Power Input (380V,3ϕ,50HZ)
- QC = Condenser Total Heat Rejection
- All above data are based on standard condtion (refer to page 7).
- Interpolation is allowed but extrapolation outside table boundary is not allowed. Contact Saran MFG group for operating conditions outside table boundary.
- The above data is subject to change without notice.

Performance Data (Cont.)

Table 14b: Performance Correction Factors (Screw Compressor) - R134a

Models	120°F			125°F			130°F			135°F			140°F		
	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC	QE	WC	QC
1SRLCS-50AU	1.0000	1.0000	1.0000	0.9560	1.0568	0.9778	0.9110	1.1176	0.9558	0.8654	1.1828	0.9341	0.8191	1.2524	0.9130
1SRLCS-60AU	1.0000	1.0000	1.0000	0.9563	1.0568	0.9777	0.9118	1.1176	0.9556	0.8665	1.1828	0.9338	0.8206	1.2524	0.9125
1SRLCS-70AU	1.0000	1.0000	1.0000	0.9565	1.0568	0.9776	0.9121	1.1176	0.9555	0.8670	1.1828	0.9336	0.8214	1.2524	0.9123
1SRLCS-80AU	1.0000	1.0000	1.0000	0.9631	1.0585	0.9831	0.9254	1.1221	0.9666	0.8869	1.1911	0.9507	0.8478	1.2659	0.9355
1SRLCS-90AU	1.0000	1.0000	1.0000	0.9632	1.0585	0.9830	0.9256	1.1221	0.9664	0.8872	1.1911	0.9504	0.8482	1.2659	0.9351
1SRLCS-110AU	1.0000	1.0000	1.0000	0.9601	1.0585	0.9801	0.9195	1.1221	0.9605	0.8783	1.1911	0.9417	0.8368	1.2659	0.9238
1SRLCS-125AU	1.0000	1.0000	1.0000	0.9616	1.0585	0.9816	0.9227	1.1221	0.9637	0.8831	1.1911	0.9464	0.8430	1.2659	0.9300
1SRLCS-140AU	1.0000	1.0000	1.0000	0.9616	1.0585	0.9816	0.9227	1.1221	0.9637	0.8831	1.1911	0.9464	0.8430	1.2659	0.9300
1SRLCS-160AU	1.0000	1.0000	1.0000	0.9598	1.0571	0.9796	0.9186	1.1182	0.9592	0.8766	1.1833	0.9389	0.8338	1.2522	0.9187
1SRLCS-180AU	1.0000	1.0000	1.0000	0.9612	1.0513	0.9790	0.9213	1.1065	0.9578	0.8806	1.1662	0.9368	0.8392	1.2308	0.9163
1SRLCS-210AU	1.0000	1.0000	1.0000	0.9647	1.0558	0.9828	0.9287	1.1146	0.9655	0.8919	1.1764	0.9483	0.8544	1.2412	0.9311
2SRLCS-100AU	1.0000	1.0000	1.0000	0.9560	1.0568	0.9778	0.9110	1.1176	0.9558	0.8654	1.1828	0.9341	0.8191	1.2524	0.9130
2SRLCS-120AU	1.0000	1.0000	1.0000	0.9563	1.0568	0.9777	0.9118	1.1176	0.9556	0.8665	1.1828	0.9338	0.8206	1.2524	0.9125
2SRLCS-140AU	1.0000	1.0000	1.0000	0.9565	1.0568	0.9776	0.9121	1.1176	0.9555	0.8670	1.1828	0.9336	0.8214	1.2524	0.9123
2SRLCS-160AU	1.0000	1.0000	1.0000	0.9631	1.0585	0.9831	0.9254	1.1221	0.9666	0.8869	1.1911	0.9507	0.8478	1.2659	0.9355
2SRLCS-180AU	1.0000	1.0000	1.0000	0.9632	1.0585	0.9830	0.9256	1.1221	0.9664	0.8872	1.1911	0.9504	0.8482	1.2659	0.9351
2SRLCS-220AU	1.0000	1.0000	1.0000	0.9601	1.0585	0.9801	0.9195	1.1221	0.9605	0.8783	1.1911	0.9417	0.8368	1.2659	0.9238
2SRLCS-250AU	1.0000	1.0000	1.0000	0.9616	1.0585	0.9816	0.9227	1.1221	0.9637	0.8831	1.1911	0.9464	0.8430	1.2659	0.9300
2SRLCS-280AU	1.0000	1.0000	1.0000	0.9616	1.0585	0.9816	0.9227	1.1221	0.9637	0.8831	1.1911	0.9464	0.8430	1.2659	0.9300
4SRLCS-200AU	1.0000	1.0000	1.0000	0.9560	1.0568	0.9778	0.9110	1.1176	0.9558	0.8654	1.1828	0.9341	0.8191	1.2524	0.9130
4SRLCS-240AU	1.0000	1.0000	1.0000	0.9563	1.0568	0.9777	0.9118	1.1176	0.9556	0.8665	1.1828	0.9338	0.8206	1.2524	0.9125
4SRLCS-280AU	1.0000	1.0000	1.0000	0.9565	1.0568	0.9776	0.9121	1.1176	0.9555	0.8670	1.1828	0.9336	0.8214	1.2524	0.9123
4SRLCS-320AU	1.0000	1.0000	1.0000	0.9631	1.0585	0.9831	0.9254	1.1221	0.9666	0.8869	1.1911	0.9507	0.8478	1.2659	0.9355
4SRLCS-360AU	1.0000	1.0000	1.0000	0.9632	1.0585	0.9830	0.9256	1.1221	0.9664	0.8872	1.1911	0.9504	0.8482	1.2659	0.9351

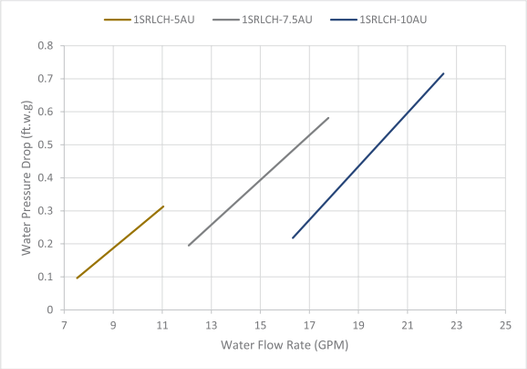
NOTE

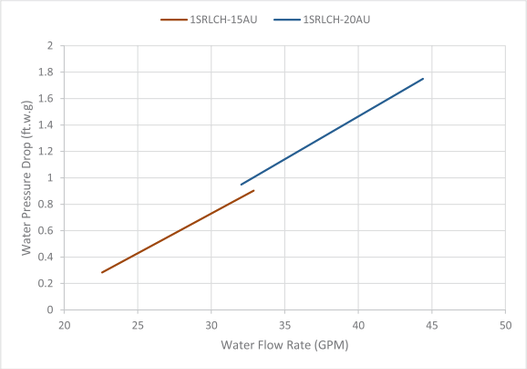
- QE = Actual Cooling Capacity
- WC = Compressor Motor Power Input (380V,3ϕ,50HZ)
- QC = Condenser Total Heat Rejection
- Interpolation is allowed but extrapolation outside table boundary is not allowed. Contact Saran MFG group for operating conditions outside table boundary.
- The above data is subject to change without notice.

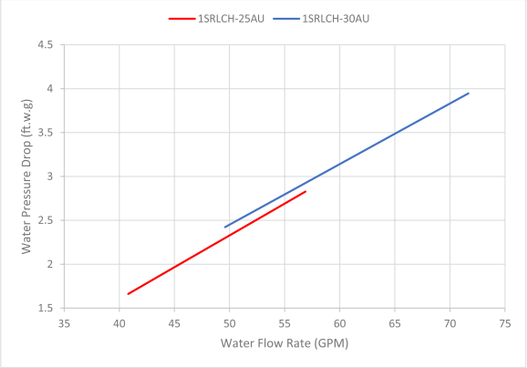
Evaporator Pressure Drop

Scroll Compressors Chillers (One Circuit)

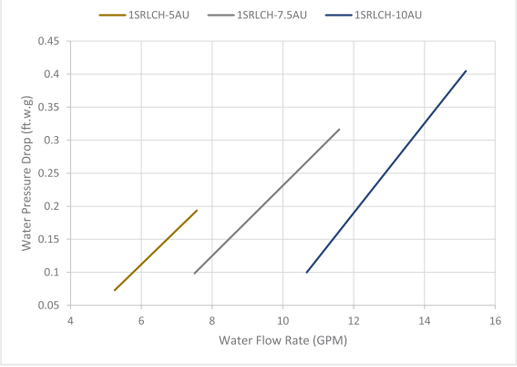
Evaporator Pressure Drop (Scroll Compressor - R22 & R407C)

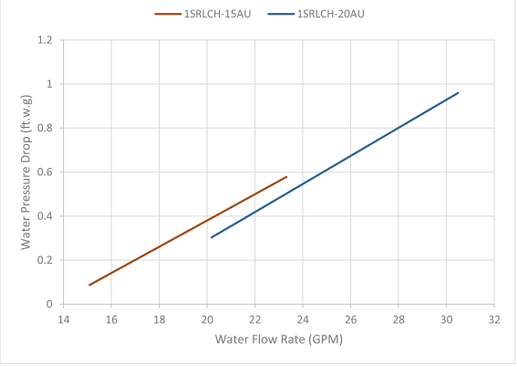


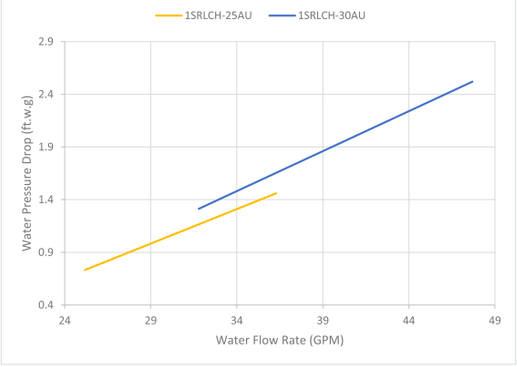




Evaporator Pressure Drop (Scroll Compressor - R134a)







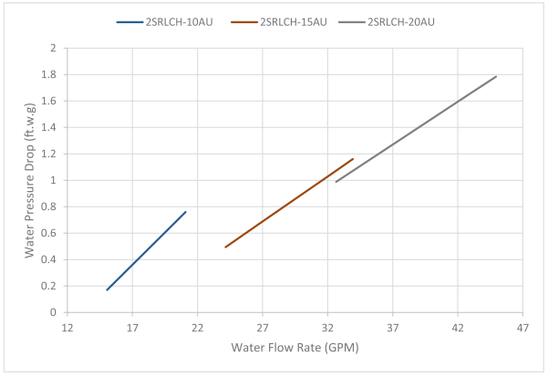
NOTE

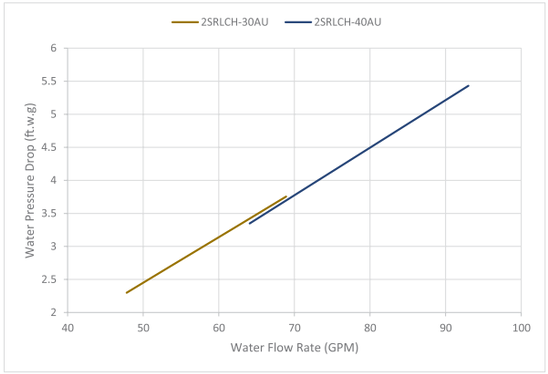
- The above data is subject to change without notice.

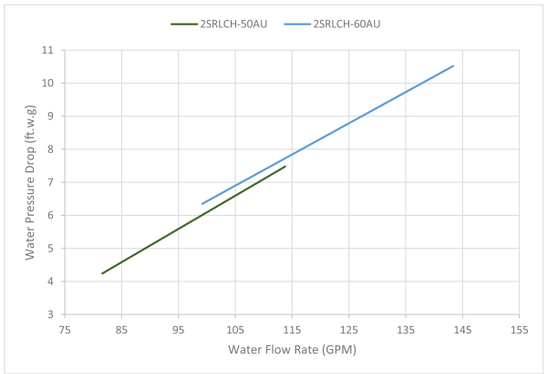
Evaporator Pressure Drop (Cont.)

Scroll Compressors Chillers (Two Circuits)

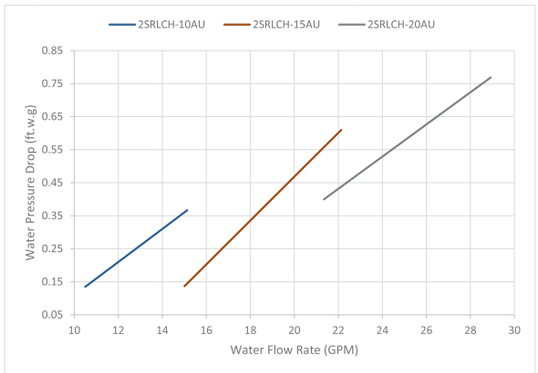
Evaporator Pressure Drop (Scroll Compressor - R22 & R407C)

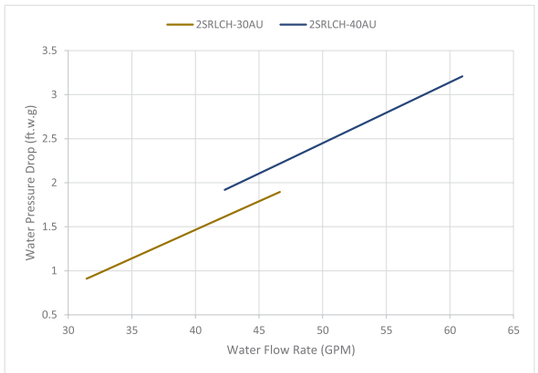


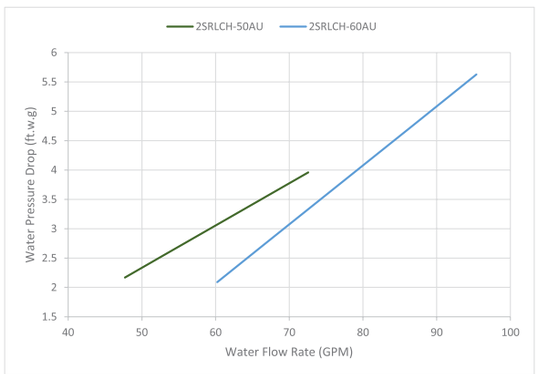




Evaporator Pressure Drop (Scroll Compressor - R134a)







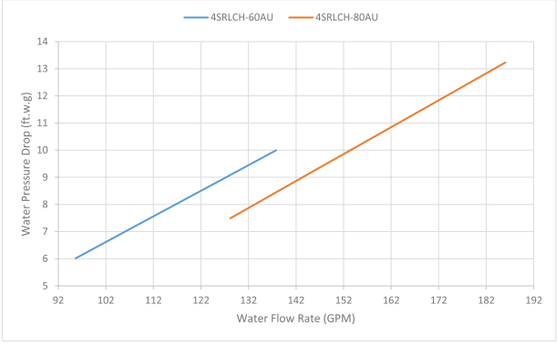
NOTE

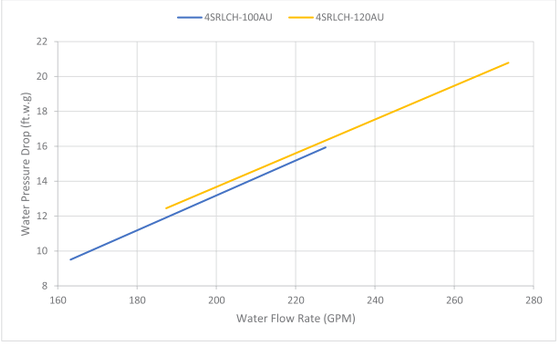
- The above data is subject to change without notice.

Evaporator Pressure Drop (Cont.)

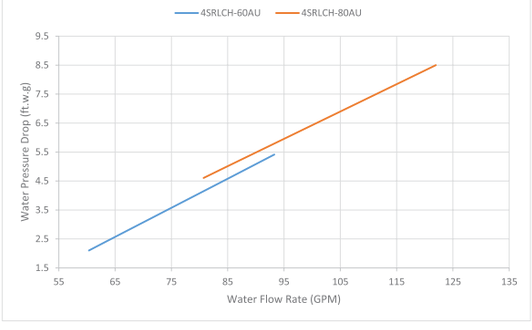
Scroll Compressors Chillers (Two Circuits)

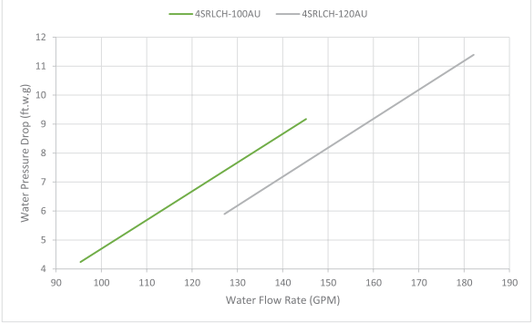
Evaporator Pressure Drop (Scroll Compressor - R22 & R407C)





Evaporator Pressure Drop (Scroll Compressor - R134a)





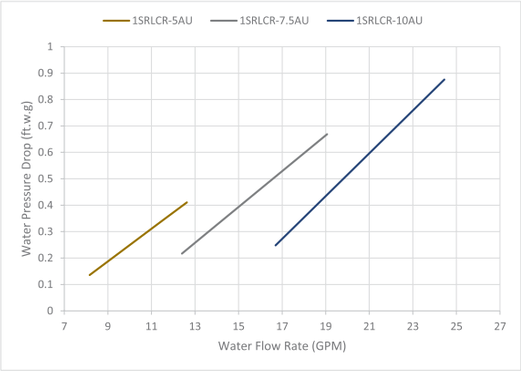
NOTE

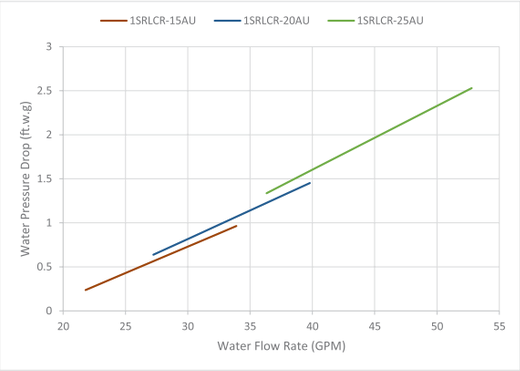
- The above data is subject to change without notice.

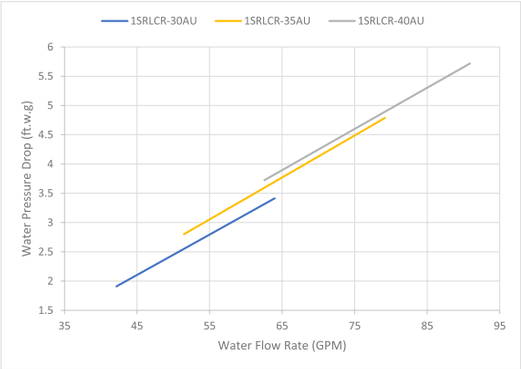
Evaporator Pressure Drop (Cont.)

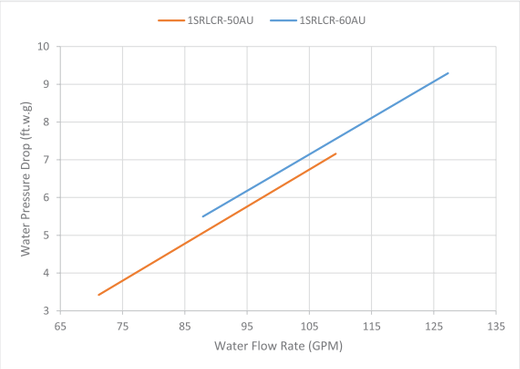
Reciprocating Compressors Chillers (One Circuit)

Evaporator Pressure Drop (Reciprocating Compressor - R22 & R407C)

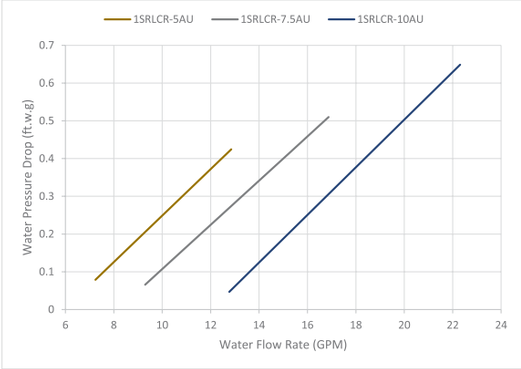


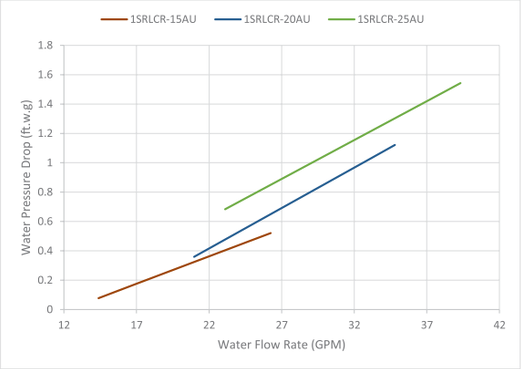


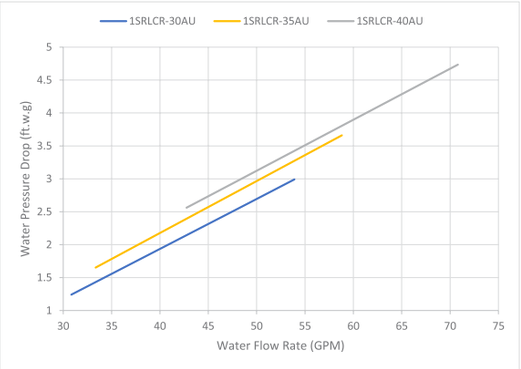


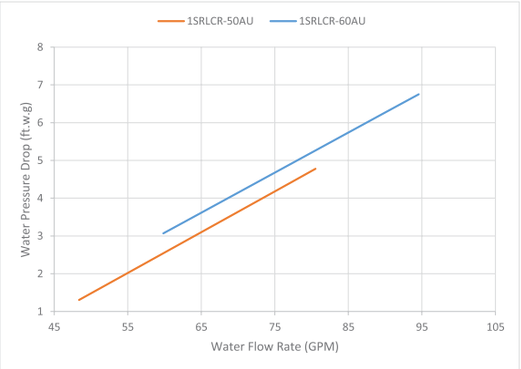


Evaporator Pressure Drop (Reciprocating Compressor - R134a)









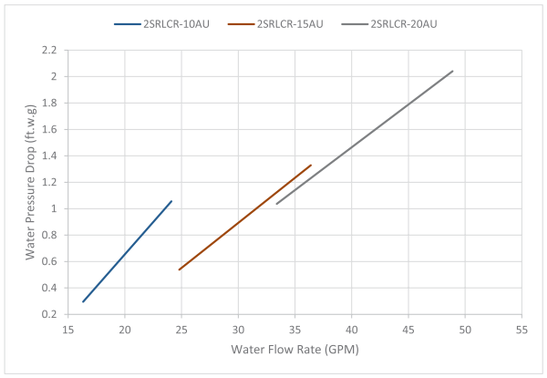
NOTE

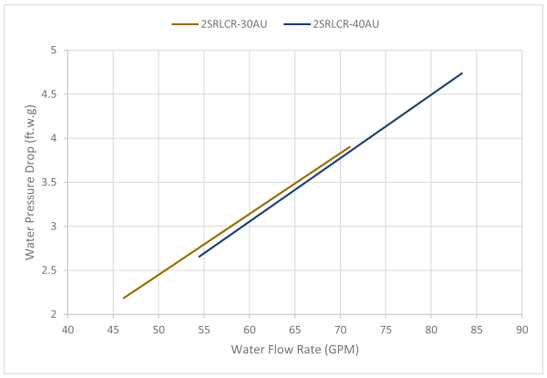
- The above data is subject to change without notice.

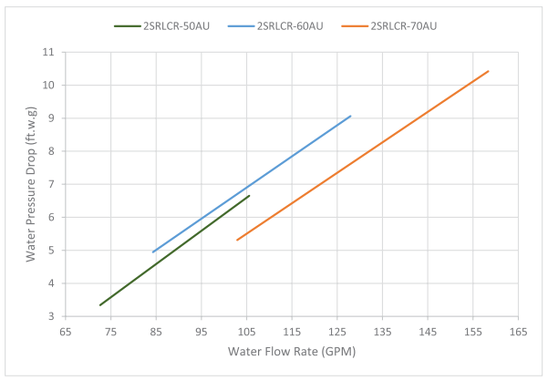
Evaporator Pressure Drop (Cont.)

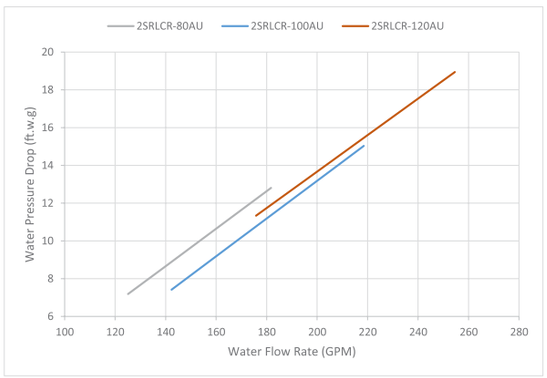
Reciprocating Compressors Chillers (Two Circuits)

Evaporator Pressure Drop (Reciprocating Compressor - R22 & R407C)

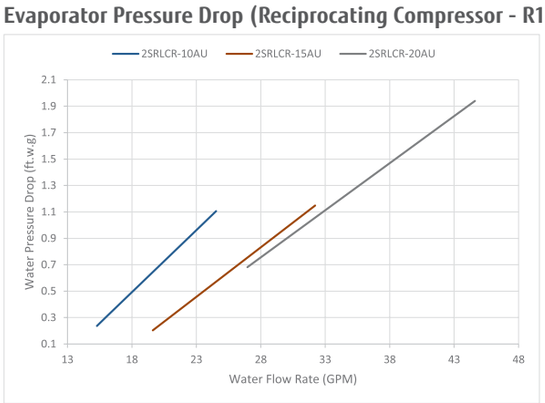


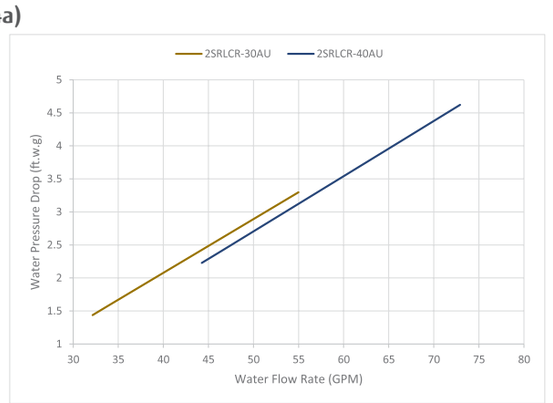


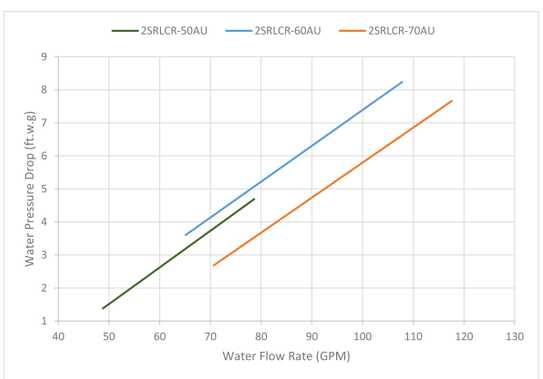


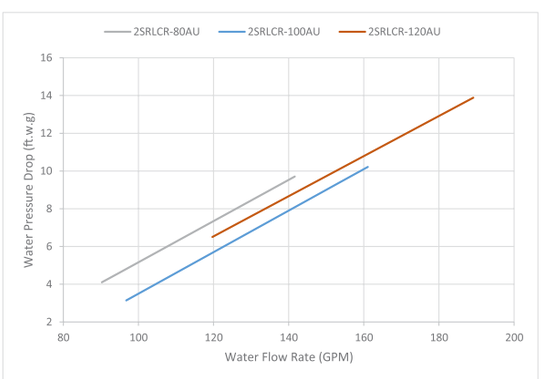


Evaporator Pressure Drop (Reciprocating Compressor - R134a)









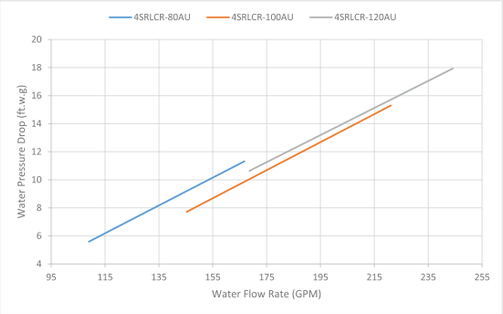
NOTE

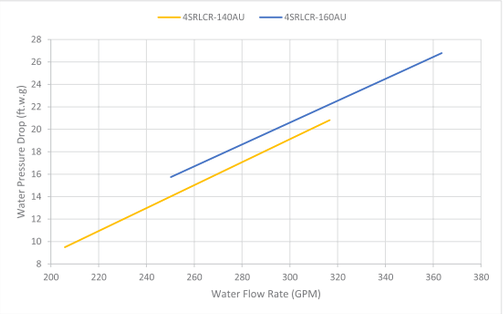
- The above data is subject to change without notice.

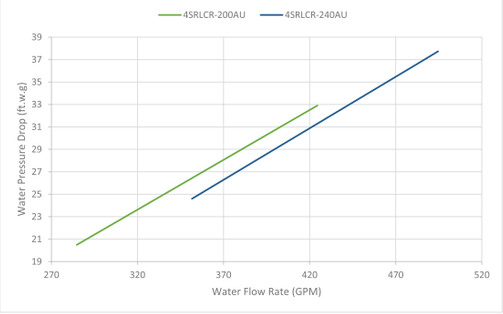
Evaporator Pressure Drop (Cont.)

Reciprocating Compressors Chillers (Two Circuits)

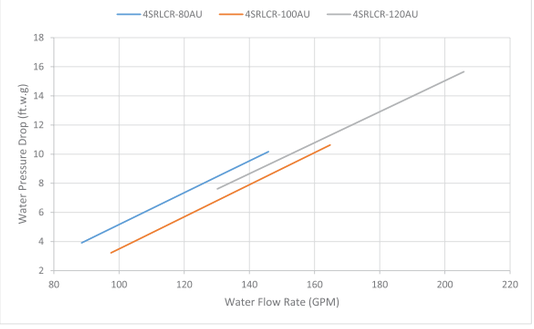
Evaporator Pressure Drop (Reciprocating Compressor - R22 & R407C)

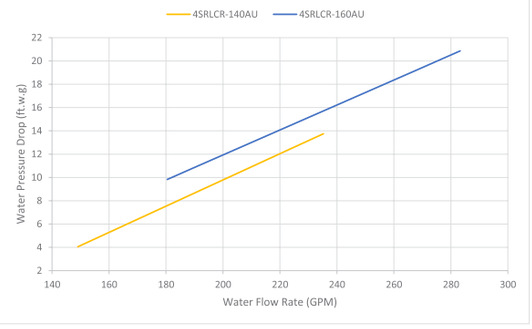


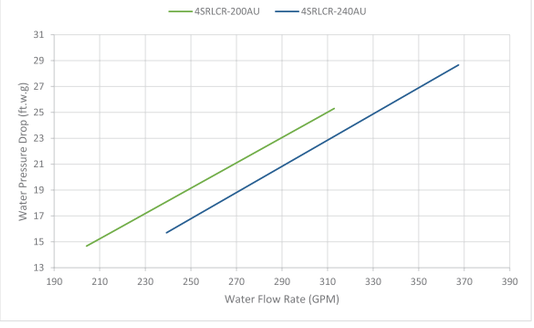




Evaporator Pressure Drop (Reciprocating Compressor - R134a)







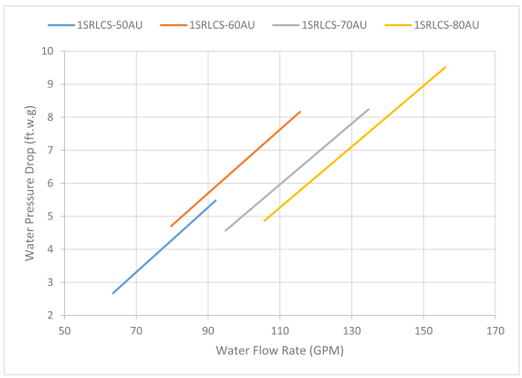
NOTE

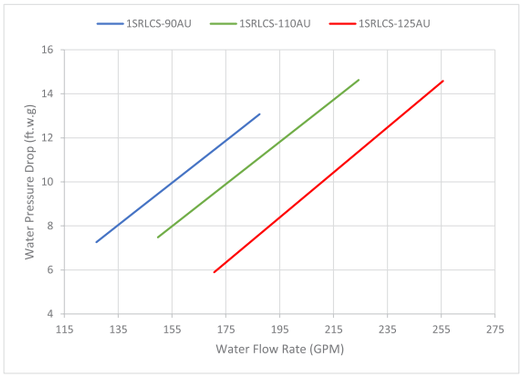
- The above data is subject to change without notice.

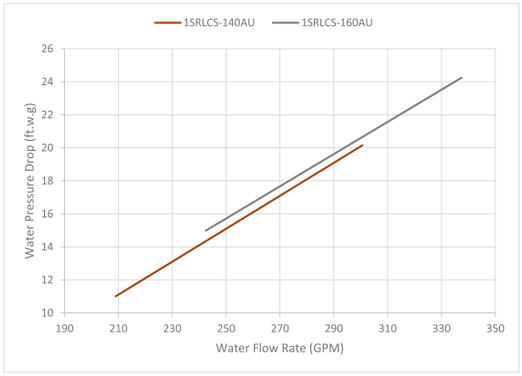
Evaporator Pressure Drop (Cont.)

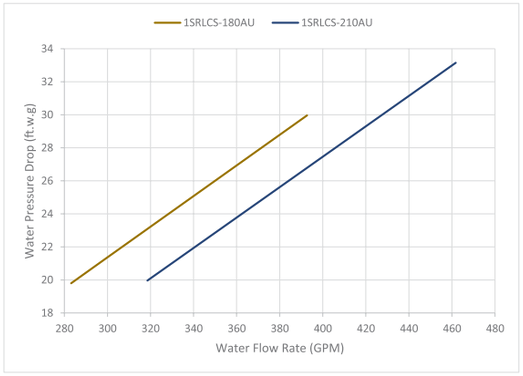
Screw Compressors Chillers (One Circuit)

Evaporator Pressure Drop (Screw Compressor - R22 & R407C)

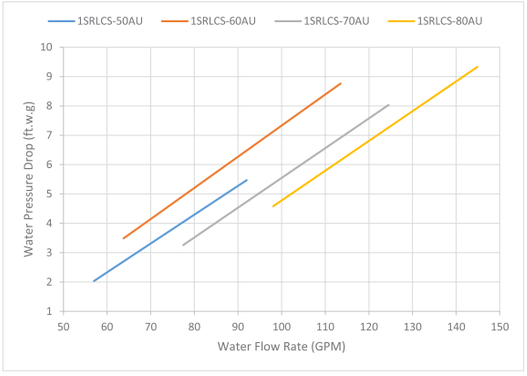


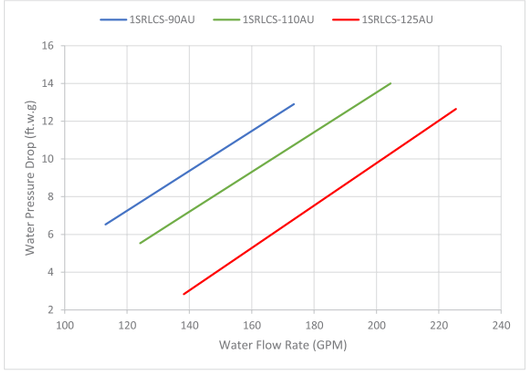


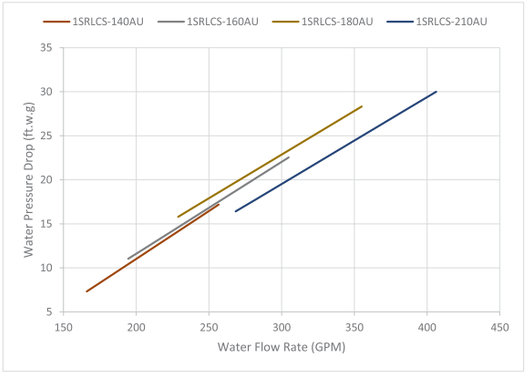




Evaporator Pressure Drop (Screw Compressor - R134a)







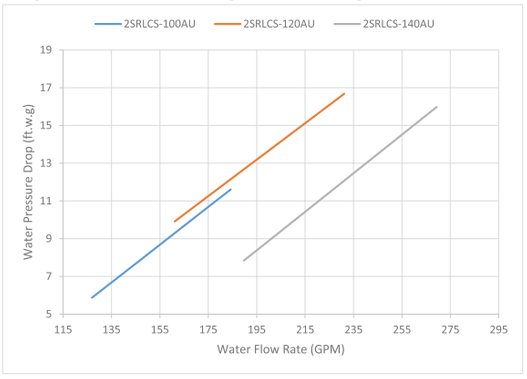
NOTE

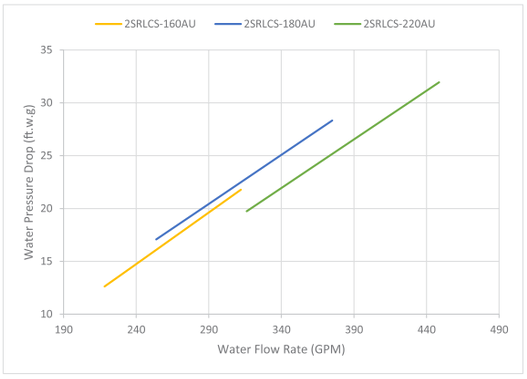
- The above data is subject to change without notice.

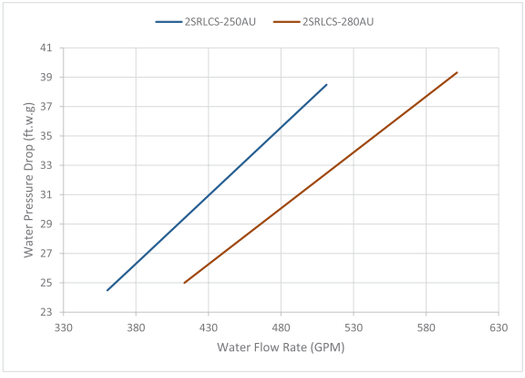
Evaporator Pressure Drop (Cont.)

Screw Compressors Chillers (Two Circuits)

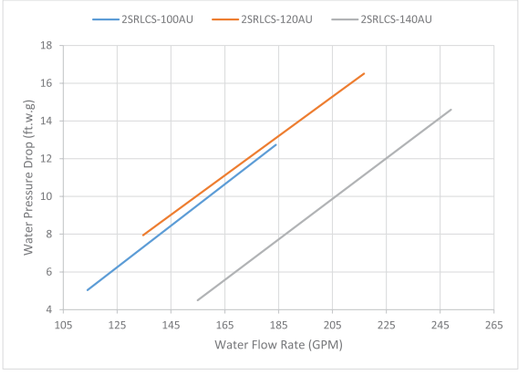
Evaporator Pressure Drop (Screw Compressor - R22 & R407C)

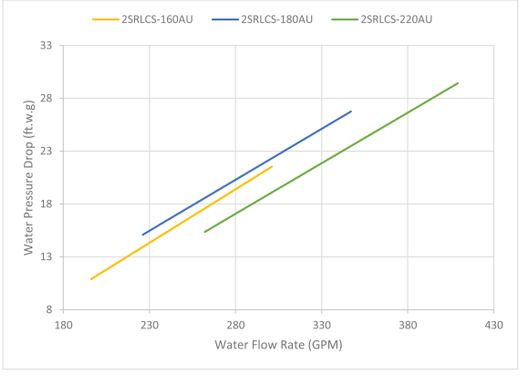


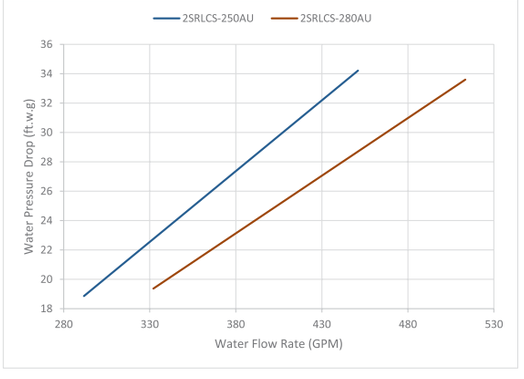




Evaporator Pressure Drop (Screw Compressor - R134a)







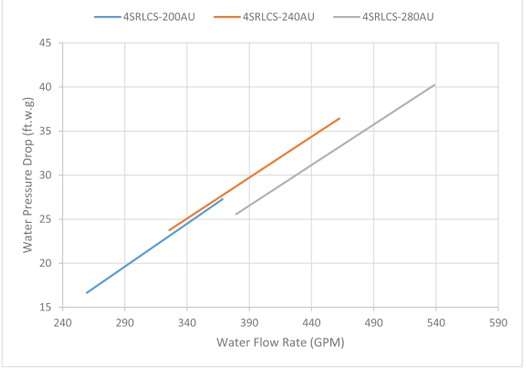
NOTE

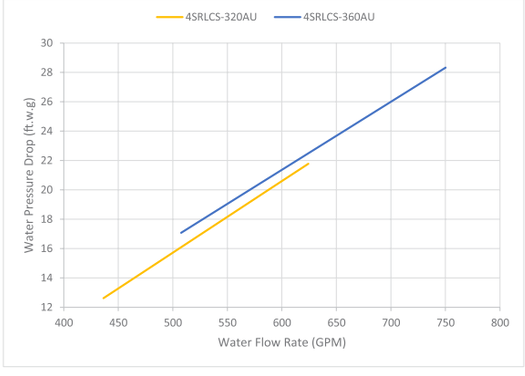
- The above data is subject to change without notice.

Evaporator Pressure Drop (Cont.)

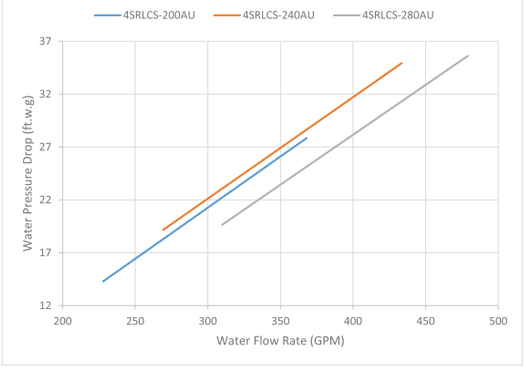
Screw Compressors Chillers (Four Circuits)

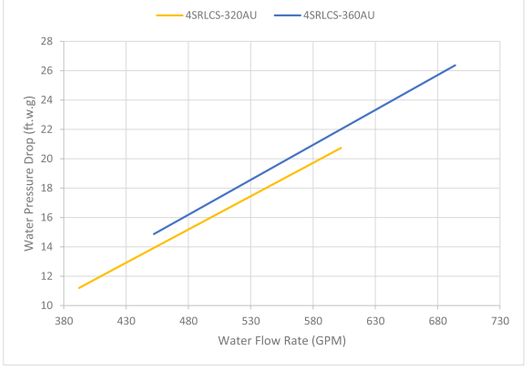
Evaporator Pressure Drop (Screw Compressor - R22 & R407C)





Evaporator Pressure Drop (Screw Compressor - R134a)





NOTE

- The above data is subject to change without notice.

Condensers Performance Data

Table 15a: Condenser Total Heat Rejection (MBH) - R22

Condenser Models	Condensing Range									
	Aluminum Fin					Copper Fin				
	10°F	15°F	20°F	25°F	30°F	10°F	15°F	20°F	25°F	30°F
75	35	54	74	95	117	36	55	76	97	119
110	75	117	162	210	259	77	120	166	215	266
150	85	132	183	236	291	87	135	187	241	298
225	151	236	326	421	521	154	241	334	432	535
300	176	275	379	489	604	180	281	388	501	619
375	225	350	483	622	767	230	358	494	636	785
450	262	409	564	728	899	268	418	577	746	921
600	320	502	695	898	1109	327	513	711	920	1137
750	398	630	878	1139	1409	407	645	901	1169	1448
900	535	839	1163	1504	1861	547	858	1191	1543	1910
1150	625	969	1331	1708	2098	636	988	1358	1743	2142
1500	811	1275	1772	2295	2839	829	1306	1816	2354	2916
1800	935	1454	2001	2571	3160	953	1483	2042	2625	3227
2000	1112	1731	2382	3059	3756	1132	1763	2428	3120	3832
2800	1506	2353	3248	4178	5136	1534	2400	3315	4267	5247
3200	1666	2601	3587	4612	5667	1697	2652	3660	4708	5786

NOTE

- 1MBH = 1000 Btu/hr
- Condensing Range = Condensing Temperature - Ambient Temperature.
- All above data are based on 12 FPI coil fin spacing and sea level altitude. For other condition, performance adjustment factors shall be attend in condenser selection (See Table 3 and 4).
- Interpolation is allowed but extrapolation outside table boundary is not allowed. Contact Saran MFG group for operating conditions outside table boundary.
- The above data is subject to change without notice.

Condensers Performance Data (Cont.)

Table 15b: Condenser Total Heat Rejection (MBH) - R407C

Condenser Models	Condensing Range									
	Aluminum Fin					Copper Fin				
	10°F	15°F	20°F	25°F	30°F	10°F	15°F	20°F	25°F	30°F
75	33	51	70	90	111	34	52	72	93	114
110	71	112	156	202	251	73	115	159	207	257
150	81	127	176	227	282	82	129	180	233	289
225	143	225	313	407	505	146	230	321	417	518
300	168	263	365	473	586	171	269	373	484	600
375	215	335	464	601	743	219	342	475	615	761
450	250	391	542	703	871	254	399	555	720	893
600	306	482	671	872	1081	312	493	687	893	1108
750	381	607	851	1110	1379	390	622	873	1139	1417
900	510	804	1120	1456	1809	521	822	1147	1493	1856
1150	599	933	1287	1659	2045	609	951	1313	1693	2087
1500	774	1225	1711	2227	2767	791	1253	1753	2284	2841
1800	898	1403	1940	2503	3086	914	1430	1979	2554	3152
2000	1070	1674	2315	2985	3677	1089	1705	2360	3044	3752
2800	1449	2278	3160	4083	5037	1476	2323	3225	4169	5145
3200	1604	2519	3492	4508	5557	1633	2568	3561	4601	5675

Table 15c: Condenser Total Heat Rejection (MBH) - R134a

Condenser Models	Condensing Range									
	Aluminum Fin					Copper Fin				
	10°F	15°F	20°F	25°F	30°F	10°F	15°F	20°F	25°F	30°F
75	40	61	82	104	127	41	62	84	107	130
110	84	129	175	223	272	86	132	179	228	279
150	94	144	196	249	304	96	148	201	255	312
225	168	257	350	445	544	172	263	358	457	558
300	196	300	407	517	631	200	306	416	530	646
375	250	382	518	658	802	255	390	530	673	821
450	291	446	606	770	939	298	456	620	789	963
600	352	540	735	936	1143	360	552	752	959	1171
750	434	669	916	1171	1433	444	686	939	1201	1471
900	592	909	1237	1577	1927	606	930	1268	1617	1977
1150	684	1043	1412	1790	2176	697	1064	1440	1827	2221
1500	893	1372	1872	2389	2921	913	1405	1918	2449	2997
1800	1019	1556	2110	2677	3257	1039	1587	2152	2731	3324
2000	1204	1840	2494	3165	3850	1226	1875	2543	3228	3927
2800	1626	2491	3384	4301	5238	1657	2540	3452	4390	5348
3200	1798	2752	3737	4748	5781	1832	2806	3812	4844	5899

NOTE

- 1MBH = 1000 Btu/hr
- Condensing Range = Condensing Temperature - Ambient Temperature.
- All above data are based on 12 FPI coil fin spacing and sea level altitude. For other condition, performance adjustment factors shall be attend in condenser selection (See Table 3 and 4).
- Interpolation is allowed but extrapolation outside table boundary is not allowed. Contact Saran MFG group for operating conditions outside table boundary.
- The above data is subject to change without notice.

Technical Data

Table 16a: Air Cooled Chiller Technical Data (Scroll Compressor)

MODEL	Refrigerant Charge (kg)			Oil Charge			Weight (kg)				Evap. Connections	
	R22	R407C	R134a	U.S. Gals	Type		Net		Oper.		R22,R407C	R134a
					R22	R407C,R134a	R22,R407C	R134a	R22,R407C	R134a		
1SRLCH-5AU	2.2	2.1	2.2	0.44	mineral	Polyolester	115	103	130	121	2×1 1/2"	2×1 1/2"
1SRLCH-7.5AU	3.3	3.1	3.3	0.70	mineral	Polyolester	163	146	190	162	2×1 1/2"	2×1 1/2"
1SRLCH-10AU	4.5	4.3	4.6	0.89	mineral	Polyolester	187	180	212	209	2×2"	2×1 1/2"
1SRLCH-15AU	7.1	6.8	7.3	1.64	mineral	Polyolester	283	244	322	271	2×2"	2×2"
1SRLCH-20AU	8.3	7.9	8.5	2.11	mineral	Polyolester	345	345	382	384	2×2 1/2"	2×2"
1SRLCH-25AU	10.7	10.2	10.9	2.11	mineral	Polyolester	422	372	480	410	2×2 1/2"	2×2 1/2"
1SRLCH-30AU	12.4	11.9	12.7	2.22	mineral	Polyolester	444	436	499	494	2×3"	2×2 1/2"
2SRLCH-10AU	4.4	4.2	5.1	0.88	mineral	Polyolester	212	204	237	233	2×2"	2×2"
2SRLCH-15AU	6.1	5.9	7.2	1.40	mineral	Polyolester	265	267	304	295	2×2"	2×2"
2SRLCH-20AU	8.3	7.9	9.8	1.78	mineral	Polyolester	373	310	436	352	2×2 1/2"	2×2"
2SRLCH-30AU	10.4	10.0	10.7	3.28	mineral	Polyolester	491	475	549	538	2×3"	2×2 1/2"
2SRLCH-40AU	13.9	13.4	14.2	4.22	mineral	Polyolester	653	620	739	680	2×3"	2×3"
2SRLCH-50AU	17.0	16.3	17.4	4.22	mineral	Polyolester	724	692	827	780	2×3"	2×3"
2SRLCH-60AU	20.5	19.6	20.9	4.44	mineral	Polyolester	769	752	866	856	2×3"	2×3"
4SRLCH-60AU	20.5	19.6	20.9	6.56	mineral	Polyolester	865	848	962	952	2×3"	2×3"
4SRLCH-80AU	31.3	26.2	27.9	8.44	mineral	Polyolester	1293	923	1471	1148	2×4"	2×3"
4SRLCH-100AU	42.4	40.7	43.3	8.44	mineral	Polyolester	1485	1042	1723	1336	2×4"	2×4"
4SRLCH-120AU	49.3	47.4	50.5	8.88	mineral	Polyolester	1574	1113	1800	1460	2×5"	2×5"

NOTE

- Total weight of the unitary air-cooled chiller = Chiller Weight + Condenser Weight
- System Total Operation Charge = Chiller Operating Charge + Condenser Operating Charge
- The above data is subject to change without notice.

Technical Data (Cont.)

Table 16b: Air Cooled Chiller Technical Data (Reciprocating Compressor)

MODEL	Refrigerant Charge (kg)			Oil Charge				Weight (kg)				Evap. Connections
	R22	R407C	R134a	U.S. Gals		Type		Net		Oper.		
				R22,R407C	R134a	R22	R407C,R134a	R22,R407C	R134a	R22,R407C	R134a	
1SRLCR-5AU	2.2	2.1	2.3	0.53	0.53	mineral	Polyolester	162	165	177	180	2×1 1/2"
1SRLCR-7.5AU	3.3	3.1	3.4	0.53	0.69	mineral	Polyolester	195	243	222	270	2×1 1/2"
1SRLCR-10AU	4.5	4.3	4.7	0.69	0.69	mineral	Polyolester	254	276	280	302	2×2"
1SRLCR-15AU	7.1	6.8	7.5	0.69	0.69	mineral	Polyolester	324	328	363	367	2×2"
1SRLCR-20AU	8.3	7.9	8.7	0.69	1.06	mineral	Polyolester	339	392	376	429	2×2 1/2"
1SRLCR-25AU	10.7	10.2	11.2	1.06	1.19	mineral	Polyolester	455	469	513	528	2×2 1/2"
1SRLCR-30AU	12.4	11.9	13.1	1.19	1.25	mineral	Polyolester	486	521	541	577	2×3"
1SRLCR-35AU	15.2	14.6	16.1	1.25	1.25	mineral	Polyolester	575	579	659	664	2×3"
1SRLCR-40AU	17.4	16.7	18.4	1.25	1.25	mineral	Polyolester	600	603	680	685	2×3"
1SRLCR-50AU	20.3	19.5	21.4	1.25	1.32	mineral	Polyolester	680	811	792	924	2×3"
1SRLCR-60AU	23.2	22.3	24.5	1.32	1.32	mineral	Polyolester	839	868	946	976	2×3"
2SRLCR-10AU	4.6	4.4	4.8	1.06	1.06	mineral	Polyolester	305	312	330	338	2×2"
2SRLCR-15AU	6.4	6.2	6.7	1.06	1.38	mineral	Polyolester	329	425	368	464	2×2"
2SRLCR-20AU	8.7	8.3	9.1	1.38	1.38	mineral	Polyolester	509	552	571	615	2×2 1/2"
2SRLCR-30AU	10.9	10.5	11.6	1.38	1.38	mineral	Polyolester	573	580	631	639	2×3"
2SRLCR-40AU	14.6	14.1	15.4	1.38	2.12	mineral	Polyolester	641	746	727	833	2×3"
2SRLCR-50AU	17.9	17.1	18.8	2.12	2.38	mineral	Polyolester	790	819	893	923	2×3"
2SRLCR-60AU	21.5	20.6	22.7	2.38	2.50	mineral	Polyolester	853	922	950	1020	2×3"
2SRLCR-70AU	28.7	27.5	30.2	2.50	2.50	mineral	Polyolester	1042	1049	1171	1180	2×4"
2SRLCR-80AU	32.9	31.6	34.8	2.50	2.50	mineral	Polyolester	1120	1127	1299	1308	2×4"
2SRLCR-100AU	44.5	42.7	46.9	2.50	2.64	mineral	Polyolester	1265	1526	1503	1767	2×4"
2SRLCR-120AU	51.8	49.8	54.6	2.64	2.64	mineral	Polyolester	1593	1651	1819	1880	2×5"
4SRLCR-80AU	34.4	33.1	36.4	2.76	4.24	mineral	Polyolester	1269	1480	1447	1660	2×4"
4SRLCR-100AU	46.6	44.8	49.2	4.24	4.76	mineral	Polyolester	1617	1675	1855	1915	2×4"
4SRLCR-120AU	54.2	52.1	57.2	4.76	5.00	mineral	Polyolester	1742	1881	1968	2110	2×5"
4SRLCR-140AU	58.7	56.4	61.9	5.00	5.00	mineral	Polyolester	2018	2032	2274	2291	2×5"
4SRLCR-160AU	69.9	67.1	73.7	5.00	5.00	mineral	Polyolester	2033	2047	2390	2408	2×5"
4SRLCR-200AU	90.5	86.9	95.4	5.00	5.28	mineral	Polyolester	2704	3228	3287	3815	2×6"
4SRLCR-240AU	113.8	109.3	120.0	5.28	5.28	mineral	Polyolester	3373	3488	3930	4051	2×6"

NOTE

- Total weight of the unitary air-cooled chiller = Chiller Weight + Condenser Weight
- System Total Operation Charge = Chiller Operating Charge + Condenser Operating Charge
- The above data is subject to change without notice.

Technical Data (Cont.)

Table 16c: Air Cooled Chiller Technical Data (Screw Compressor)

MODEL	Refrigerant Charge (kg)			Oil Charge			Weight (kg)				Evap. Connections
	R22	R407C	R134a	U.S. Gals		Type	Net		Oper.		
				R22,R407C	R134a	R22, R407C,R134a	R22,R407C	R134a	R22,R407C	R134a	
1SRLCS-50AU	20.3	19.5	21.4	2.51	3.96	Polyolester	742	945	866	1067	2×3"
1SRLCS-60AU	23.2	22.3	24.5	2.51	3.96	Polyolester	771	979	889	1096	2×3"
1SRLCS-70AU	27.3	26.2	28.8	3.96	3.96	Polyolester	1035	1051	1177	1192	2×4"
1SRLCS-80AU	31.3	30.1	33.1	3.96	5.81	Polyolester	1113	1449	1310	1645	2×4"
1SRLCS-90AU	38.9	37.3	41.0	3.96	5.81	Polyolester	1200	1536	1383	1717	2×4"
1SRLCS-110AU	46.4	44.6	49.0	5.81	5.81	Polyolester	1632	1653	1886	1905	2×5"
1SRLCS-125AU	49.3	47.4	52.0	5.81	5.02	Polyolester	1671	1703	1920	1950	2×5"
1SRLCS-140AU	53.4	51.3	56.3	5.81	5.02	Polyolester	1820	1862	2102	2141	2×5"
1SRLCS-160AU	63.5	61.0	67.0	5.02	7.93	Polyolester	1988	2429	2381	2819	2×5"
1SRLCS-180AU	78.3	75.2	82.6	5.02	7.93	Polyolester	2159	2590	2524	2951	2×6"
1SRLCS-210AU	86.2	82.8	90.9	7.93	7.93	Polyolester	2704	2767	3158	3217	2×6"
2SRLCS-100AU	43.2	41.5	45.6	5.02	7.92	Polyolester	1386	1791	1648	2056	2×4"
2SRLCS-120AU	50.3	48.3	53.0	5.02	7.92	Polyolester	1455	1871	1704	2123	2×5"
2SRLCS-140AU	54.5	52.3	57.4	7.92	7.92	Polyolester	1998	2030	2280	2315	2×5"
2SRLCS-160AU	64.8	62.2	68.3	7.92	11.62	Polyolester	2156	2828	2549	3225	2×5"
2SRLCS-180AU	79.9	76.7	84.3	7.92	11.62	Polyolester	2374	3046	2843	3519	2×6"
2SRLCS-220AU	87.9	84.5	92.7	11.62	11.62	Polyolester	3357	3399	3997	4045	2×6"
2SRLCS-250AU	110.6	106.2	116.6	11.62	10.04	Polyolester	3531	3594	4143	4213	2×6"
2SRLCS-280AU	120.8	116.0	127.4	11.62	10.04	Polyolester	3648	3732	4243	4334	2×6"
4SRLCS-200AU	92.6	88.9	97.7	10.04	15.84	Polyolester	2806	3617	3324	4139	2×6"
4SRLCS-240AU	104.8	100.6	110.6	10.04	15.84	Polyolester	2988	3819	3621	4459	2×6"
4SRLCS-280AU	125.5	120.5	132.4	15.84	15.84	Polyolester	3995	4058	4591	4662	2×6"
4SRLCS-320AU	133.5	128.1	140.7	15.84	23.24	Polyolester	4313	5657	5099	6450	4×5"
4SRLCS-360AU	164.5	158.0	173.6	15.84	23.24	Polyolester	4748	6092	5686	7039	4×6"

NOTE

- Total weight of the unitary air-cooled chiller = Chiller Weight + Condenser Weight
- System Total Operation Charge = Chiller Operating Charge + Condenser Operating Charge
- The above data is subject to change without notice.

Technical Data (Cont.)

Table 17: Air-Cooled Condenser Technical Data

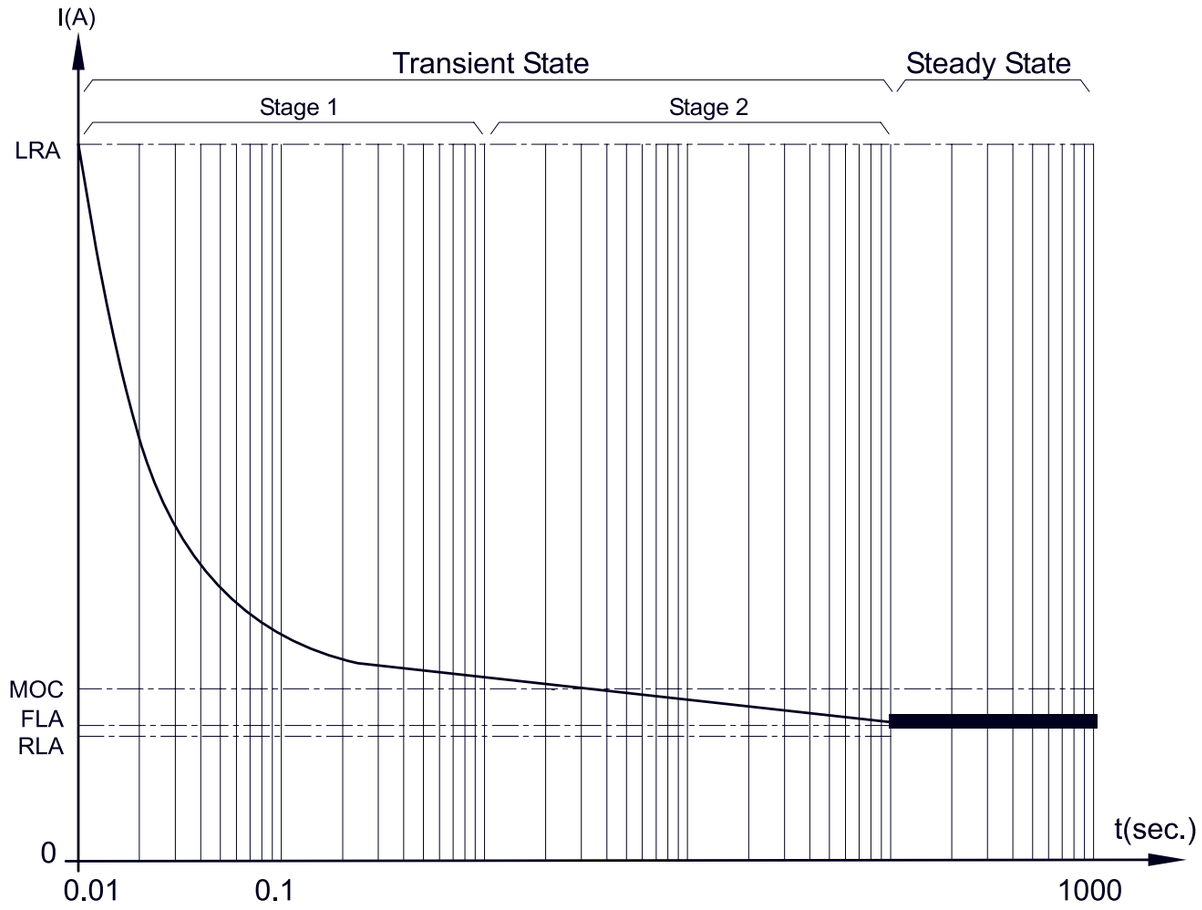
Models	Propeller Fan Data						Coil Data		Refrigerant Charge (kg)			No. of Circuit	Unit Weight (kg)	Electrical Data	
	Qty	Dia. (mm)	RPM	Power (kW)	Current (Amp.)	Total Air Flow Rate (CFM)	Rows	Coil Face Area (Sq ft)	R22	R407C	R134a			Total Power (kW)	Total Current (Amp.)
75	1	710	900	0.9	1.9	6500	3	8.7	5.1	4.8	5.2	1	173	0.9	1.9
110	2	710	900	0.9	1.9	13000	3	18.3	10.6	10.0	10.8	1	325	1.8	3.8
150	2	710	900	0.9	1.9	14000	3	21.3	11.8	11.2	12.0	1	353	1.8	3.8
225	4	710	900	0.9	1.9	25600	3	36.8	19.8	18.8	20.2	1,2	622	3.6	7.6
300	4	710	900	0.9	1.9	28800	3	44.6	23.3	22.1	23.8	1,2	675	3.6	7.6
375	5	710	900	0.9	1.9	36000	3	58.1	29.7	28.2	30.3	1,2	855	4.5	9.5
450	6	710	900	0.9	1.9	43200	3	65.9	32.8	31.2	33.5	1,2	943	5.4	11.4
600	4	800	900	1.2	2.9	50000	3	80.9	39.3	37.3	40.1	1,2	1049	4.8	11.4
750	6	800	900	1.2	2.9	63000	3	94.9	44.8	42.5	45.7	1,2	1214	7.2	17.1
900	8	800	900	1.2	2.9	88000	3	131.1	60.2	57.1	61.4	1,2,4	1736	9.6	22.8
1150	8	800	900	1.2	2.9	80000	4	131.1	77.9	73.9	79.5	1,2,4	1957	9.6	22.8
1500	12	800	900	1.2	2.9	132000	3	197.3	87.9	83.4	89.7	1,2,4	2611	14.4	34.2
1800	12	800	900	1.2	2.9	120000	4	197.3	110.3	104.7	112.6	1,2,4	2943	14.4	34.2
2000	12	800	900	1.2	2.9	138000	4	239.5	129.9	123.2	132.5	1,2,4	3596	14.4	34.2
2800	18	800	900	1.2	2.9	189000	4	313.3	164.3	156.0	167.7	1,2,4	4714	21.6	51.3
3200	18	800	900	1.2	2.9	207000	4	351.3	171.9	163.1	175.4	1,2,4	5067	21.6	51.3

NOTE

- The above data is subject to change without notice.

Electrical Data

Electrical Schematic Curve at the Start-Up



NOTE

- The transient stage is drastically reduce in chillers that utilize unloaders or part winding start method so it curve differs from the above.

Locked Rotor Amps (LRA):

Peak of transient electrical current at the instant of compressor motor start-up.(stage1).

Maximum Operating Current (MOC):

Maximum electrical current tolerates by compressor motor. This current exists only when the system has been idle (warm evaporator, condenser & connecting piping) & lasts for a short period until the system reaches the steady state condition. Other wise the stage 2 of transient state on the graph can be ignored.

Full Load Amps (FLA):

Maximum electrical drawn at the most undesirable system working condition under steady state operation.

Rated Load Amps (RLA):

Nominal electrical current drawn at normal working condition under steady state operation.

Electrical Data (Cont.)

Table 18a: Chiller Electrical Data (Scroll Compressor)-R22

Model	Per Compressor							Total		
	HP	Starting Type	RLA	FLA	MOC	LRA	MPI	RLA	FLA	MPI
1SRLCH-5AU	5	D.O.L	7.75	8.95	11	65.5	5	7.75	8.95	5
1SRLCH-7.5AU	7.5	D.O.L	11.55	13.6	15.9	95	7.45	11.55	13.6	7.45
1SRLCH-10AU	10	D.O.L	14.6	17.1	19.6	118	10	14.6	17.1	10
1SRLCH-15AU	15	D.O.L	22.7	25.85	35	175	14.95	22.7	25.85	14.95
1SRLCH-20AU	20	D.O.L	28.8	33.55	50	215	20.1	28.8	33.55	20.1
1SRLCH-25AU	25	D.O.L	36.55	42.55	69	270	25.4	36.55	42.55	25.4
1SRLCH-30AU	30	D.O.L	41.8	49.1	79	300	30.15	41.8	49.1	30.15
2SRLCH-10AU	5	D.O.L	7.75	8.95	11	65.5	5	15.5	17.9	10
2SRLCH-15AU	7.5	D.O.L	11.55	13.6	15.9	95	7.45	23.1	27.2	14.9
2SRLCH-20AU	10	D.O.L	14.6	17.1	19.6	118	10	29.2	34.2	20
2SRLCH30-AU	15	D.O.L	22.7	25.85	35	175	14.95	45.4	51.7	29.9
2SRLCH-40AU	20	D.O.L	28.8	33.55	50	215	20.1	57.6	67.1	40.2
2SRLCH-50AU	25	D.O.L	36.55	42.55	69	270	25.4	73.1	85.1	50.8
2SRLCH-60AU	30	D.O.L	41.8	49.1	79	300	30.15	83.6	98.2	60.3
4SRLCH-60AU	15	D.O.L	22.7	25.85	35	175	14.95	90.8	103.4	59.8
4SRLCH-80AU	20	D.O.L	28.8	33.55	50	215	20.1	115.2	134.2	80.4
4SRLCH-100AU	25	D.O.L	36.55	42.55	69	270	25.4	146.2	170.2	101.6
4SRLCH120-AU	30	D.O.L	41.8	49.1	79	300	30.15	167.2	196.4	120.6

System Incoming Cable Size	
System Total Ampere	Cable Size(mm²)
17 A	4*2.5
25A	4*4
30A	4*6
45 A	4*10
60A	4*16
75A	3*25/16
95 A	3*35/16
115 A	3*50/25
145 A	3*70/35
175 A	3*95/50
200 A	3*120/70
230 A	3*150/70
265 A	3*185/95
310 A	3*240/120
350 A	2*(3*95/50)
405 A	2*(3*120/70)
465 A	2*(3*150/70)
530 A	2*(3*185/95)
620 A	2*(3*240/120)
700A	3*(3*150/70)

NOTE

- System power supply: 380~400V/3ϕ/ 50Hz
- RLA = Rated Load Ampere
- FLA = Full Load Ampere
- MOC = Maximum Operating Current
- LRA = Lock Rotor Ampere
- MPI = Maximum Power Input (kW)
- D.O.L = Direct On Line Start Type
- Cable size are based on copper conductor at maximum ambient temperature of 40°C and maximum distance of 70 meter.
- System Total Power Input = Chiller Total Power Input + Air Condenser Total Power Input.
- System Total Ampere = Chiller Total Ampere + Air Condenser Total Ampere.
- For system incoming wire sizing add the chiller total ampere and air condenser total ampere.
- All above data subject to change without notice.

Electrical Data (Cont.)

Table 18b: Chiller Electrical Data (Scroll Compressor)-R407C

Model	Per Compressor							Total		
	HP	Starting Type	RLA	FLA	MOC	LRA	MPI	RLA	FLA	MPI
1SRLCH-5AU	5	D.O.L	7.05	8.3	12	59	5	7.05	8.3	5
1SRLCH-7.5AU	7.5	D.O.L	12	13.7	15.9	95	7.65	12	13.7	7.65
1SRLCH-10AU	10	D.O.L	14.8	17.35	19.6	118	9.95	14.8	17.35	9.95
1SRLCH-15AU	15	D.O.L	22.25	26.5	35	175	15.2	22.25	26.5	15.2
1SRLCH-20AU	20	D.O.L	28.85	34.05	50	215	20.7	28.85	34.05	20.7
1SRLCH-25AU	25	D.O.L	35.55	41.85	69	270	25.35	35.55	41.85	25.35
1SRLCH-30AU	30	D.O.L	41.55	48.95	79	300	30.6	41.55	48.95	30.6
2SRLCH-10AU	5	D.O.L	7.05	8.3	12	59	5	14.1	16.6	10
2SRLCH-15AU	7.5	D.O.L	12	13.7	15.9	95	7.65	24	27.4	15.3
2SRLCH-20AU	10	D.O.L	14.8	17.35	19.6	118	9.95	29.6	34.7	19.9
2SRLCH30-AU	15	D.O.L	22.25	26.5	35	175	15.2	44.5	53	30.4
2SRLCH-40AU	20	D.O.L	28.85	34.05	50	215	20.7	57.7	68.1	41.4
2SRLCH-50AU	25	D.O.L	35.55	41.85	69	270	25.35	71.1	83.7	50.7
2SRLCH-60AU	30	D.O.L	41.55	48.95	79	300	30.6	83.1	97.9	61.2
4SRLCH-60AU	15	D.O.L	22.25	26.5	35	175	15.2	89	106	60.8
4SRLCH-80AU	20	D.O.L	28.85	34.05	50	215	20.7	115.4	136.2	82.8
4SRLCH-100AU	25	D.O.L	35.55	41.85	69	270	25.35	142.2	167.4	101.4
4SRLCH120-AU	30	D.O.L	41.55	48.95	79	300	30.6	166.2	195.8	122.4

System Incoming Cable Size	
System Total Ampere	Cable Size(mm²)
17 A	4*2.5
25A	4*4
30A	4*6
45 A	4*10
60A	4*16
75A	3*25/16
95 A	3*35/16
115 A	3*50/25
145 A	3*70/35
175 A	3*95/50
200 A	3*120/70
230 A	3*150/70
265 A	3*185/95
310 A	3*240/120
350 A	2*(3*95/50)
405 A	2*(3*120/70)
465 A	2*(3*150/70)
530 A	2*(3*185/95)
620 A	2*(3*240/120)
700A	3*(3*150/70)

NOTE

- System power supply: 380~400V/3ϕ/ 50Hz
- RLA = Rated Load Ampere
- FLA = Full Load Ampere
- MOC = Maximum Operating Current
- LRA = Lock Rotor Ampere
- MPI = Maximum Power Input (kW)
- D.O.L = Direct On Line Start Type
- Cable size are based on copper conductor at maximum ambient temperature of 40°C and maximum distance of 70 meter.
- System Total Power Input = Chiller Total Power Input + Air Condenser Total Power Input.
- System Total Ampere = Chiller Total Ampere + Air Condenser Total Ampere.
- For system incoming wire sizing add the chiller total ampere and air condenser total ampere.
- All above data subject to change without notice.

Electrical Data (Cont.)

Table 18c: Chiller Electrical Data(Scroll Compressor)-R134a

Model	Per Compressor							Total		
	HP	Starting Type	RLA	FLA	MOC	LRA	MPI	RLA	FLA	MPI
1SRLCH-5AU	5	D.O.L	5.65	6.35	11	65.5	3.3	5.65	6.35	3.3
1SRLCH-7.5AU	7.5	D.O.L	9.75	10.65	15.9	95	5.1	9.75	10.65	5.1
1SRLCH-10AU	10	D.O.L	11.6	12.9	19.6	118	6.55	11.6	12.9	6.55
1SRLCH-15AU	15	D.O.L	21.4	22.85	34	174	10.35	21.4	22.85	10.35
1SRLCH-20AU	20	D.O.L	22.3	25	50	215	13.9	22.3	25	13.9
1SRLCH-25AU	25	D.O.L	28.4	32.05	69	270	17.35	28.4	32.05	17.35
1SRLCH-30AU	30	D.O.L	30.9	35.3	79	300	20.7	30.9	35.3	20.7
2SRLCH-10AU	5	D.O.L	5.65	6.35	11	65.5	3.3	11.3	12.7	6.6
2SRLCH-15AU	7.5	D.O.L	9.75	10.65	15.9	95	5.1	19.5	21.3	10.2
2SRLCH-20AU	10	D.O.L	11.6	12.9	19.6	118	6.55	23.2	25.8	13.1
2SRLCH30-AU	15	D.O.L	21.4	22.85	34	174	10.35	42.8	45.7	20.7
2SRLCH-40AU	20	D.O.L	22.3	25	50	215	13.9	44.6	50	27.8
2SRLCH-50AU	25	D.O.L	28.4	32.05	69	270	17.35	56.8	64.1	34.7
2SRLCH-60AU	30	D.O.L	30.9	35.3	79	300	20.7	61.8	70.6	41.4
4SRLCH-60AU	15	D.O.L	21.4	22.85	34	174	10.35	85.6	91.4	41.4
4SRLCH-80AU	20	D.O.L	22.3	25	50	215	13.9	89.2	100	55.6
4SRLCH-100AU	25	D.O.L	28.4	32.05	69	270	17.35	113.6	128.2	69.4
4SRLCH120-AU	30	D.O.L	30.9	35.3	79	300	20.7	123.6	141.2	82.8

System Incoming Cable Size	
System Total Ampere	Cable Size(mm²)
17 A	4*2.5
25A	4*4
30A	4*6
45 A	4*10
60A	4*16
75A	3*25/16
95 A	3*35/16
115 A	3*50/25
145 A	3*70/35
175 A	3*95/50
200 A	3*120/70
230 A	3*150/70
265 A	3*185/95
310 A	3*240/120
350 A	2*(3*95/50)
405 A	2*(3*120/70)
465 A	2*(3*150/70)
530 A	2*(3*185/95)
620 A	2*(3*240/120)
700A	3*(3*150/70)

NOTE

- System power supply: 380~400V/3ϕ/ 50Hz
- RLA = Rated Load Ampere
- FLA = Full Load Ampere
- MOC = Maximum Operating Current
- LRA = Lock Rotor Ampere
- MPI = Maximum Power Input (kW)
- D.O.L = Direct On Line Start Type
- Cable size are based on copper conductor at maximum ambient temperature of 40°C and maximum distance of 70 meter.
- System Total Power Input = Chiller Total Power Input + Air Condenser Total Power Input.
- System Total Ampere = Chiller Total Ampere + Air Condenser Total Ampere.
- For system incoming wire sizing add the chiller total ampere and air condenser total ampere.
- All above data subject to change without notice.

Electrical Data (Cont.)

Table 19a: Chiller Electrical Data(Reciprocating Compressor)-R22

Model	Per Compressor							Total		
	HP	Starting Type	RLA	FLA	MOC	LRA	MPI	RLA	FLA	MPI
1SRLCR-5AU	5	D.O.L	8.3	9.6	10.8	62.2	5.5	8.3	9.6	5.5
1SRLCR-7.5AU	7.5	D.O.L	12.05	14.2	16.5	82.4	8.35	12.05	14.2	8.35
1SRLCR-10AU	10	PW	15.15	17.85	19.9	59/99	10.4	15.15	17.85	10.4
1SRLCR-15AU	15	PW	21.2	25.1	28.2	81/132	14.6	21.2	25.1	14.6
1SRLCR-20AU	20	PW	24.3	28.8	33.2	97/158	17.1	24.3	28.8	17.1
1SRLCR-25AU	25	PW	32.7	38.9	44	125/211	23	32.7	38.9	23
1SRLCR-30AU	30	PW	38.5	45.4	51.2	141/233	26.4	38.5	45.4	26.4
1SRLCR-35AU	35	PW	50.2	59.8	64.4	165/275	35.1	50.2	59.8	35.1
1SRLCR-40AU	40	PW	58.6	68.3	73.9	219/362	39.6	58.6	68.3	39.6
1SRLCR-50AU	50	PW	77.9	87.2	96.2	226/404	48.1	77.9	87.2	48.1
1SRLCR-60AU	60	PW	91.5	107.2	113	349/513	59	91.5	107.2	59
2SRLCR-10AU	5	D.O.L	8.3	9.6	10.8	62.2	5.5	16.6	19.2	11
2SRLCR-15AU	7.5	D.O.L	12.05	14.2	16.5	82.4	8.35	24.1	28.4	16.7
2SRLCR-20AU	10	PW	15.15	17.85	19.9	59/99	10.4	30.3	35.7	20.8
2SRLCR-30AU	15	PW	21.2	25.1	28.2	81/132	14.6	42.4	50.2	29.2
2SRLCR-40AU	20	PW	24.3	28.8	33.2	97/158	17.1	48.6	57.6	34.2
2SRLCR-50AU	25	PW	32.7	38.9	44	125/211	23	65.4	77.8	46
2SRLCR-60AU	30	PW	38.5	45.4	51.2	141/233	26.4	77	90.8	52.8
2SRLCR-70AU	35	PW	50.2	59.8	64.4	165/275	35.1	100.4	119.6	70.2
2SRLCR-80AU	40	PW	58.6	68.3	73.9	219/362	39.6	117.2	136.6	79.2
2SRLCR-100AU	50	PW	77.9	87.2	96.2	226/404	48.1	155.8	174.4	96.2
2SRLCR-120AU	60	PW	91.5	107.2	113	349/513	59	183	214.4	118
4SRLCR-80AU	20	PW	24.3	28.8	33.2	97/158	17.1	97.2	115.2	68.4
4SRLCR-100AU	25	PW	32.7	38.9	44	125/211	23	130.8	155.6	92
4SRLCR-120AU	30	PW	38.5	45.4	51.2	141/233	26.4	154	181.6	105.6
4SRLCR-140AU	35	PW	50.2	59.8	64.4	165/275	35.1	200.8	239.2	140.4
4SRLCR-160AU	40	PW	58.6	68.3	73.9	219/362	39.6	234.4	273.2	158.4
4SRLCR-200AU	50	PW	77.9	87.2	96.2	226/404	48.1	311.6	348.8	192.4
4SRLCR-240AU	60	PW	91.5	107.2	113	349/513	59	366	428.8	236

System Incoming Cable Size	
System Total Ampere	Cable Size(mm²)
17 A	4*2.5
25A	4*4
30A	4*6
45 A	4*10
60A	4*16
75A	3*25/16
95 A	3*35/16
115 A	3*50/25
145 A	3*70/35
175 A	3*95/50
200 A	3*120/70
230 A	3*150/70
265 A	3*185/95
310 A	3*240/120
350 A	2*(3*95/50)
405 A	2*(3*120/70)
465 A	2*(3*150/70)
530 A	2*(3*185/95)
620 A	2*(3*240/120)
700A	3*(3*150/70)

NOTE

- System Power Supply = 380~400v/3ϕ/ 50Hz
- RLA = Rated Load Ampere
- FLA = Full Load Ampere
- MOC = Maximum Operating Current
- LRA = Lock Rotor Ampere
- MPI = Maximum Power Input (Kw)
- D.O.L = Direct Online Start Type
- PW = Part Winding Start Type
- Cable Size Are Based On Copper Conductor At Maximum Ambient Temperature Of 40°C And Maximum Distance Of 70 Meter.
- System Total Power Input = Chiller Total Power Input + Air Condenser Total Power Input.
- System Total Ampere = Chiller Total Ampere + Air Condenser Total Ampere.
- For System Incoming Wire Sizing Add The Chiller Total Ampere And Air Condenser Total Ampere.
- Starting Type Of Compressors Maybe Change Base On The Unit Operation Condition
- All Above Data Subject To Change Without Notice.

Electrical Data (Cont.)

Table 19b: Chiller Electrical Data(Reciprocating Compressor)-R407C

Model	Per Compressor							Total		
	HP	Starting Type	RLA	FLA	MOC	LRA	MPI	RLA	FLA	MPI
1SRLCR-5AU	5	D.O.L	8.17	9.57	10.8	62.2	5.47	8.17	9.57	5.47
1SRLCR-7.5AU	7.5	D.O.L	11.8	14.05	16.5	82.4	8.27	11.8	14.05	8.27
1SRLCR-10AU	10	PW	14.45	16.85	19.9	59/99	9.75	14.45	16.85	9.75
1SRLCR-15AU	15	PW	20.2	23.6	28.2	81/132	13.65	20.2	23.6	13.65
1SRLCR-20AU	20	PW	23.1	27.1	33.2	97/158	16	23.1	27.1	16
1SRLCR-25AU	25	PW	31.5	37.5	44	125/211	22.1	31.5	37.5	22.1
1SRLCR-30AU	30	PW	37.6	44.6	51.2	141/233	25.9	37.6	44.6	25.9
1SRLCR-35AU	35	PW	47.9	57.3	64.4	165/275	33.5	47.9	57.3	33.5
1SRLCR-40AU	40	PW	57.5	67.4	73.9	219/362	39	57.5	67.4	39
1SRLCR-50AU	50	PW	75.7	84.9	96.2	266/404	46	75.7	84.9	46
1SRLCR-60AU	60	PW	90.2	106.1	113	349/513	58.3	90.2	106.1	58.3
2SRLCR-10AU	5	D.O.L	8.17	9.57	10.8	62.2	5.47	16.34	19.14	10.94
2SRLCR-15AU	7.5	D.O.L	11.8	14.05	16.5	82.4	8.27	23.6	28.1	16.54
2SRLCR-20AU	10	PW	14.45	16.85	19.9	59/99	9.75	28.9	33.7	19.5
2SRLCR-30AU	15	PW	20.2	23.6	28.2	81/132	13.65	40.4	47.2	27.3
2SRLCR-40AU	20	PW	23.1	27.1	33.2	97/158	16	46.2	54.2	32
2SRLCR-50AU	25	PW	31.5	37.5	44	125/211	22.1	63	75	44.2
2SRLCR-60AU	30	PW	37.6	44.6	51.2	141/233	25.9	75.2	89.2	51.8
2SRLCR-70AU	35	PW	47.9	57.3	64.4	165/275	33.5	95.8	114.6	67
2SRLCR-80AU	40	PW	57.5	67.4	73.9	219/362	39	115	134.8	78
2SRLCR-100AU	50	PW	75.7	84.9	96.2	266/404	46	151.4	169.8	92
2SRLCR-120AU	60	PW	90.2	106.1	113	349/513	58.3	180.4	212.2	116.6
4SRLCR-80AU	20	PW	23.1	27.1	33.2	97/158	16	92.4	108.4	64
4SRLCR-100AU	25	PW	31.5	37.5	44	125/211	22.1	126	150	88.4
4SRLCR-120AU	30	PW	37.6	44.6	51.2	141/233	25.9	150.4	178.4	103.6
4SRLCR-140AU	35	PW	47.9	57.3	64.4	165/275	33.5	191.6	229.2	134
4SRLCR-160AU	40	PW	57.5	67.4	73.9	219/362	39	230	269.6	156
4SRLCR-200AU	50	PW	75.7	84.9	96.2	266/404	46	302.8	339.6	184
4SRLCR-240AU	60	PW	90.2	106.1	113	349/513	58.3	360.8	424.4	233.2

System Incoming Cable Size	
System Total Ampere	Cable Size(mm²)
17 A	4*2.5
25A	4*4
30A	4*6
45 A	4*10
60A	4*16
75A	3*25/16
95 A	3*35/16
115 A	3*50/25
145 A	3*70/35
175 A	3*95/50
200 A	3*120/70
230 A	3*150/70
265 A	3*185/95
310 A	3*240/120
350 A	2*(3*95/50)
405 A	2*(3*120/70)
465 A	2*(3*150/70)
530 A	2*(3*185/95)
620 A	2*(3*240/120)
700A	3*(3*150/70)

NOTE

- System Power Supply = 380~400v/3ϕ/ 50Hz
- RLA = Rated Load Ampere
- FLA = Full Load Ampere
- MOC = Maximum Operating Current
- LRA = Lock Rotor Ampere
- MPI = Maximum Power Input (Kw)
- D.O.L = Direct Online Start Type
- PW = Part Winding Start Type
- Cable Size Are Based On Copper Conductor At Maximum Ambient Temperature Of 40°C And Maximum Distance Of 70 Meter.
- System Total Power Input = Chiller Total Power Input + Air Condenser Total Power Input.
- System Total Ampere = Chiller Total Ampere + Air Condenser Total Ampere.
- For System Incoming Wire Sizing Add The Chiller Total Ampere And Air Condenser Total Ampere.
- Starting Type Of Compressors Maybe Change Base On The Unit Operation Condition
- All Above Data Subject To Change Without Notice.

Electrical Data (Cont.)

Table 19c: Chiller Electrical Data(Reciprocating Compressor)-R134a

Model	Per Compressor							Total		
	HP	Starting Type	RLA	FLA	MOC	LRA	MPI	RLA	FLA	MPI
1SRLCR-5AU	5	D.O.L	8.2	9.8	14.5	62.2	5.6	8.2	9.8	5.6
1SRLCR-7.5AU	7.5	PW	9.9	11.9	16.6	39/68	6.95	9.9	11.9	6.95
1SRLCR-10AU	10	PW	13.65	16.3	22.7	59/99	9.35	13.65	16.3	9.35
1SRLCR-15AU	15	PW	15.75	19	26.6	69/113	11.2	15.75	19	11.2
1SRLCR-20AU	20	PW	21.5	25.7	36.7	97/158	15.05	21.5	25.7	15.05
1SRLCR-25AU	25	PW	24.3	29.5	43.9	97/158	17.55	24.3	29.5	17.55
1SRLCR-30AU	30	PW	33.4	39.9	53.2	141/233	22.7	33.4	39.9	22.7
1SRLCR-35AU	35	PW	38	45.8	65.5	141/233	26.7	38	45.8	26.7
1SRLCR-40AU	40	PW	49.6	57.5	83.2	219/362	31.9	49.6	57.5	31.9
1SRLCR-50AU	50	PW	63.9	74	92	298/438	38.9	63.9	74	38.9
1SRLCR-60AU	60	PW	75.7	87.3	113	349/513	45.7	75.7	87.3	45.7
2SRLCR-10AU	5	D.O.L	8.2	9.8	14.5	62.2	5.6	16.4	19.6	11.2
2SRLCR-15AU	7.5	PW	9.9	11.9	16.6	39/68	6.95	19.8	23.8	13.9
2SRLCR-20AU	10	PW	13.65	16.3	22.7	59/99	9.35	27.3	32.6	18.7
2SRLCR-30AU	15	PW	15.75	19	26.6	69/113	11.2	31.5	38	22.4
2SRLCR-40AU	20	PW	21.5	25.7	36.7	97/158	15.05	43	51.4	30.1
2SRLCR-50AU	25	PW	24.3	29.5	43.9	97/158	17.55	48.6	59	35.1
2SRLCR-60AU	30	PW	33.4	39.9	53.2	141/233	22.7	66.8	79.8	45.4
2SRLCR-70AU	35	PW	38	45.8	65.5	141/233	26.7	76	91.6	53.4
2SRLCR-80AU	40	PW	49.6	57.5	83.2	219/362	31.9	99.2	115	63.8
2SRLCR-100AU	50	PW	63.9	74	92	298/438	38.9	127.8	148	77.8
2SRLCR-120AU	60	PW	75.7	87.3	113	349/513	45.7	151.4	174.6	91.4
4SRLCR-80AU	20	PW	21.5	25.7	36.7	97/158	15.05	86	102.8	60.2
4SRLCR-100AU	25	PW	24.3	29.5	43.9	97/158	17.55	97.2	118	70.2
4SRLCR-120AU	30	PW	33.4	39.9	53.2	141/233	22.7	133.6	159.6	90.8
4SRLCR-140AU	35	PW	38	45.8	65.5	141/233	26.7	152	183.2	106.8
4SRLCR-160AU	40	PW	49.6	57.5	83.2	219/362	31.9	198.4	230	127.6
4SRLCR-200AU	50	PW	63.9	74	92	298/438	38.9	255.6	296	155.6
4SRLCR-240AU	60	PW	75.7	87.3	113	349/513	45.7	302.8	349.2	182.8

System Incoming Cable Size	
System Total Ampere	Cable Size(mm²)
17 A	4*2.5
25A	4*4
30A	4*6
45 A	4*10
60A	4*16
75A	3*25/16
95 A	3*35/16
115 A	3*50/25
145 A	3*70/35
175 A	3*95/50
200 A	3*120/70
230 A	3*150/70
265 A	3*185/95
310 A	3*240/120
350 A	2*(3*95/50)
405 A	2*(3*120/70)
465 A	2*(3*150/70)
530 A	2*(3*185/95)
620 A	2*(3*240/120)
700A	3*(3*150/70)

NOTE

- System Power Supply = 380~400v/3ϕ/ 50Hz
- RLA = Rated Load Ampere
- FLA = Full Load Ampere
- MOC = Maximum Operating Current
- LRA = Lock Rotor Ampere
- MPI = Maximum Power Input (Kw)
- D.O.L = Direct Online Start Type
- PW = Part Winding Start Type
- Cable Size Are Based On Copper Conductor At Maximum Ambient Temperature Of 40°C And Maximum Distance Of 70 Meter.
- System Total Power Input = Chiller Total Power Input + Air Condenser Total Power Input.
- System Total Ampere = Chiller Total Ampere + Air Condenser Total Ampere.
- For System Incoming Wire Sizing Add The Chiller Total Ampere And Air Condenser Total Ampere.
- Starting Type Of Compressors Maybe Change Base On The Unit Operation Condition
- All Above Data Subject To Change Without Notice.

Electrical Data (Cont.)

Table 19c: Chiller Electrical Data(Screw Compressor)-R22

Model	Per Compressor							Total		
	HP	Starting Type	RLA	FLA	MOC	LRA	MPI	RLA	FLA	MPI
1SRLCS-50AU	50	PW	63.1	77.8	86	218/411	47	63.1	77.8	47
1SRLCS-60AU	60	PW	77.3	95.7	108	269/508	58.3	77.3	95.7	58.3
1SRLCS-70AU	70	PW	91.3	110.5	128	290/485	68.2	91.3	110.5	68.2
1SRLCS-80AU	80	PW	102.6	124	144	350/585	76.3	102.6	124	76.3
1SRLCS-90AU	90	PW	115.2	140.8	162	423/686	88.1	115.2	140.8	88.1
1SRLCS-110AU	110	PW	142.1	176.5	185	520/801	108.4	142.1	176.5	108.4
1SRLCS-125AU	125	PW	162.9	202	216	612/943	123.5	162.9	202	123.5
1SRLCS-140AU	140	PW	194.5	239	246	665/1023	146.7	194.5	239	146.7
1SRLCS-160AU	160	PW	209	244	260	729/1114	148.9	209	244	148.9
1SRLCS-180AU	180	PW	245	283	310	757/1181	169.5	245	283	169.5
1SRLCS-210AU	210	Y-D	272	339	370	586/1853	209	272	339	209
2SRLCS-100AU	50	PW	63.1	77.8	86	218/411	47	126.2	155.6	94
2SRLCS-120AU	60	PW	77.3	95.7	108	269/508	58.3	154.6	191.4	116.6
2SRLCS-140AU	70	PW	91.3	110.5	128	290/485	68.2	182.6	221	136.4
2SRLCS-160AU	80	PW	102.6	124	144	350/585	76.3	205.2	248	152.6
2SRLCS-180AU	90	PW	115.2	140.8	162	423/686	88.1	230.4	281.6	176.2
2SRLCS-220AU	110	PW	142.1	176.5	185	520/801	108.4	284.2	353	216.8
2SRLCS-250AU	125	PW	162.9	202	216	612/943	123.5	325.8	404	247
2SRLCS-280AU	140	PW	194.5	239	246	665/1023	146.7	389	478	293.4
4SRLCS-200AU	50	PW	63.1	77.8	86	218/411	47	252.4	311.2	188
4SRLCS-240AU	60	PW	77.3	95.7	108	269/508	58.3	309.2	382.8	233.2
4SRLCS-280AU	70	PW	91.3	110.5	128	290/485	68.2	365.2	442	272.8
4SRLCS-320AU	80	PW	102.6	124	144	350/585	76.3	410.4	496	305.2
4SRLCS-360AU	90	PW	115.2	140.8	162	423/686	88.1	460.8	563.2	352.4

System Incoming Cable Size	
System Total Ampere	Cable Size(mm²)
17 A	4*2.5
25A	4*4
30A	4*6
45 A	4*10
60A	4*16
75A	3*25/16
95 A	3*35/16
115 A	3*50/25
145 A	3*70/35
175 A	3*95/50
200 A	3*120/70
230 A	3*150/70
265 A	3*185/95
310 A	3*240/120
350 A	2*(3*95/50)
405 A	2*(3*120/70)
465 A	2*(3*150/70)
530 A	2*(3*185/95)
620 A	2*(3*240/120)
700A	3*(3*150/70)

NOTE

- System Power Supply = 380~400v/3ϕ/ 50Hz
- RLA = Rated Load Ampere
- FLA = Full Load Ampere
- MOC = Maximum Operating Current
- LRA = Lock Rotor Ampere
- MPI = Maximum Power Input (Kw)
- D.O.L = Direct Online Start Type
- PW = Part Winding Start Type
- Y-D=Star-Delta Start Type
- Cable Size Are Based On Copper Conductor At Maximum Ambient Temperature Of 40°C And Maximum Distance Of 70 Meter.
- System Total Power Input = Chiller Total Power Input + Air Condenser Total Power Input.
- System Total Ampere = Chiller Total Ampere + Air Condenser Total Ampere.
- For System Incoming Wire Sizing Add The Chiller Total Ampere And Air Condenser Total Ampere.
- Starting Type Of Compressors Maybe Change Base On The Unit Operation Condition
- All Above Data Subject To Change Without Notice.

Electrical Data (Cont.)

Table 20a: Chiller Electrical Data(Screw Compressor)-R407C

Model	Per Compressor							Total		
	HP	Starting Type	RLA	FLA	MOC	LRA	MPI	RLA	FLA	MPI
1SRLCS-50AU	50	PW	62.2	75.9	86	218/411	45.7	62.2	75.9	45.7
1SRLCS-60AU	60	PW	76.2	93.3	108	269/508	56.8	76.2	93.3	56.8
1SRLCS-70AU	70	PW	87.4	104.5	128	290/485	64.2	87.4	104.5	64.2
1SRLCS-80AU	80	PW	98.6	119.4	144	350/585	73.3	98.6	119.4	73.3
1SRLCS-90AU	90	PW	110.3	135.4	162	423/686	84.5	110.3	135.4	84.5
1SRLCS-110AU	110	PW	141.8	178.3	185	520/801	109.5	141.8	178.3	109.5
1SRLCS-125AU	125	PW	162.5	204	216	612/943	124.8	162.5	204	124.8
1SRLCS-140AU	140	PW	184.3	232	246	665/1023	142.5	184.3	232	142.5
1SRLCS-160AU	160	PW	206	239	260	729/1114	146.1	206	239	146.1
1SRLCS-180AU	180	PW	238	273	310	757/1181	163.1	238	273	163.1
1SRLCS-210AU	210	Y-D	256	309	370	586/1853	190.6	256	309	190.6
2SRLCS-100AU	50	PW	62.2	75.9	86	218/411	45.7	124.4	151.8	91.4
2SRLCS-120AU	60	PW	76.2	93.3	108	269/508	56.8	152.4	186.6	113.6
2SRLCS-140AU	70	PW	87.4	104.5	128	290/485	64.2	174.8	209	128.4
2SRLCS-160AU	80	PW	98.6	119.4	144	350/585	73.3	197.2	238.8	146.6
2SRLCS-180AU	90	PW	110.3	135.4	162	423/686	84.5	220.6	270.8	169
2SRLCS-220AU	110	PW	141.8	178.3	185	520/801	109.5	283.6	356.6	219
2SRLCS-250AU	125	PW	162.5	204	216	612/943	124.8	325	408	249.6
2SRLCS-280AU	140	PW	184.3	232	246	665/1023	142.5	368.6	464	285
4SRLCS-200AU	50	PW	62.2	75.9	86	218/411	45.7	248.8	303.6	182.8
4SRLCS-240AU	60	PW	76.2	93.3	108	269/508	56.8	304.8	373.2	227.2
4SRLCS-280AU	70	PW	87.4	104.5	128	290/485	64.2	349.6	418	256.8
4SRLCS-320AU	80	PW	98.6	119.4	144	350/585	73.3	394.4	477.6	293.2
4SRLCS-360AU	90	PW	110.3	135.4	162	423/686	84.5	441.2	541.6	338

System Incoming Cable Size	
System Total Ampere	Cable Size(mm²)
17 A	4*2.5
25A	4*4
30A	4*6
45 A	4*10
60A	4*16
75A	3*25/16
95 A	3*35/16
115 A	3*50/25
145 A	3*70/35
175 A	3*95/50
200 A	3*120/70
230 A	3*150/70
265 A	3*185/95
310 A	3*240/120
350 A	2*(3*95/50)
405 A	2*(3*120/70)
465 A	2*(3*150/70)
530 A	2*(3*185/95)
620 A	2*(3*240/120)
700A	3*(3*150/70)

NOTE

- System Power Supply = 380~400v/3ϕ/ 50Hz
- RLA = Rated Load Ampere
- FLA = Full Load Ampere
- MOC = Maximum Operating Current
- LRA = Lock Rotor Ampere
- MPI = Maximum Power Input (Kw)
- PW = Part Winding Start Type
- Y-D = Star-Delta Start Type
- Cable Size Are Based On Copper Conductor At Maximum Ambient Temperature Of 40°C And Maximum Distance Of 70 Meter.
- System Total Power Input = Chiller Total Power Input + Air Condenser Total Power Input.
- System Total Ampere = Chiller Total Ampere + Air Condenser Total Ampere.
- For System Incoming Wire Sizing Add The Chiller Total Ampere And Air Condenser Total Ampere.
- All Above Data Subject To Change Without Notice

Electrical Data (Cont.)

Table 20b: Chiller Electrical Data(Screw Compressor)-R134a

Model	Per Compressor							Total		
	HP	Starting Type	RLA	FLA	MOC	LRA	MPI	RLA	FLA	MPI
1SRLCS-50AU	50	PW	58.2	70.9	79	206/355	42.4	58.2	70.9	42.4
1SRLCS-60AU	60	PW	67.3	81.4	98	267/449	48.9	67.3	81.4	48.9
1SRLCS-70AU	70	PW	75.9	91.9	124	290/485	55.5	75.9	91.9	55.5
1SRLCS-80AU	80	PW	85.3	105.2	144	394/606	67.6	85.3	105.2	67.6
1SRLCS-90AU	90	PW	99.8	123.7	155	439/675	77	99.8	123.7	77
1SRLCS-110AU	110	PW	118.1	144.6	182	520/801	87.5	118.1	144.6	87.5
1SRLCS-125AU	125	PW	134	163.7	196	612/943	98.4	134	163.7	98.4
1SRLCS-140AU	140	PW	151.3	185.1	214	665/1023	112	151.3	185.1	112
1SRLCS-160AU	160	Y-D	171.7	208	280	436/1364	128.2	171.7	208	128.2
1SRLCS-180AU	180	Y-D	188.5	230	310	465/1442	143.8	188.5	230	143.8
1SRLCS-210AU	210	Y-D	226	274	320	586/1853	167.2	226	274	167.2
2SRLCS-100AU	50	PW	58.2	70.9	79	206/355	42.4	116.4	141.8	84.8
2SRLCS-120AU	60	PW	67.3	81.4	98	267/449	48.9	134.6	162.8	97.8
2SRLCS-140AU	70	PW	75.9	91.9	124	290/485	55.5	151.8	183.8	111
2SRLCS-160AU	80	PW	85.3	105.2	144	394/606	67.6	170.6	210.4	135.2
2SRLCS-180AU	90	PW	99.8	123.7	155	439/675	77	199.6	247.4	154
2SRLCS-220AU	110	PW	118.1	144.6	182	520/801	87.5	236.2	289.2	175
2SRLCS-250AU	125	PW	134	163.7	196	612/943	98.4	268	327.4	196.8
2SRLCS-280AU	140	PW	151.3	185.1	214	665/1023	112	302.6	370.2	224
4SRLCS-200AU	50	PW	58.2	70.9	79	206/355	42.4	232.8	283.6	169.6
4SRLCS-240AU	60	PW	67.3	81.4	98	267/449	48.9	269.2	325.6	195.6
4SRLCS-280AU	70	PW	75.9	91.9	124	290/485	55.5	303.6	367.6	222
4SRLCS-320AU	80	PW	85.3	105.2	144	394/606	67.6	341.2	420.8	270.4
4SRLCS-360AU	90	PW	99.8	123.7	155	439/675	77	399.2	494.8	308

System Incoming Cable Size	
System Total Ampere	Cable Size(mm²)
17 A	4*2.5
25A	4*4
30A	4*6
45 A	4*10
60A	4*16
75A	3*25/16
95 A	3*35/16
115 A	3*50/25
145 A	3*70/35
175 A	3*95/50
200 A	3*120/70
230 A	3*150/70
265 A	3*185/95
310 A	3*240/120
350 A	2*(3*95/50)
405 A	2*(3*120/70)
465 A	2*(3*150/70)
530 A	2*(3*185/95)
620 A	2*(3*240/120)
700A	3*(3*150/70)

NOTE

- System Power Supply = 380~400v/3ϕ/ 50Hz
- RLA = Rated Load Ampere
- FLA = Full Load Ampere
- MOC = Maximum Operating Current
- LRA = Lock Rotor Ampere
- MPI = Maximum Power Input (Kw)
- PW = Part Winding Start Type
- Y-D = Star-Delta Start Type
- Cable Size Are Based On Copper Conductor At Maximum Ambient Temperature Of 40°C And Maximum Distance Of 70 Meter.
- System Total Power Input = Chiller Total Power Input + Air Condenser Total Power Input.
- System Total Ampere = Chiller Total Ampere + Air Condenser Total Ampere.
- For System Incoming Wire Sizing Add The Chiller Total Ampere And Air Condenser Total Ampere.
- All Above Data Subject To Change Without Notice

Dimensions

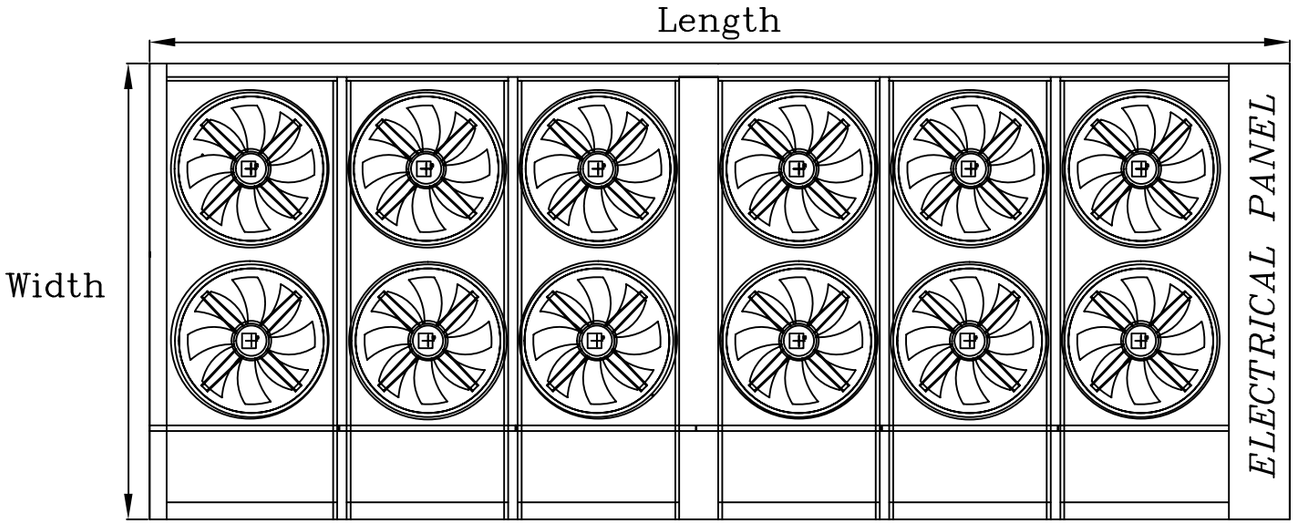


Table 21: Unitary Air Cooled Chiller Dimensions (based on condenser model)

Condenser model of unitary air-cooled chiller	Coil Type	Length	Width	Heigth
075	F-Type	1440	1200	1400
110	F-Type	1440	2100	1400
150	F-Type	1440	2100	1400
225	V-Type	2120	2100	1450
300	V-Type	2120	2100	1450
375	V-Type	3010	2100	1450
450	V-Type	3010	2100	1750
600	V-Type	3100	2400	2200
750	V-Type	3800	2400	2200
900	W-Type	4850	2400	2350
1150	W-Type	4850	2400	2350
1500	W-Type	6500	2700	2400
1800	W-Type	6500	2700	2400
2000	W-Type	6500	3000	2500
2800	W-Type	7000	3300	2890
3200	W-Type	7000	3300	3090

NOTE

- All dimensions are in millimeter
- The above data is subject to change without notice.

Installation Recommendation

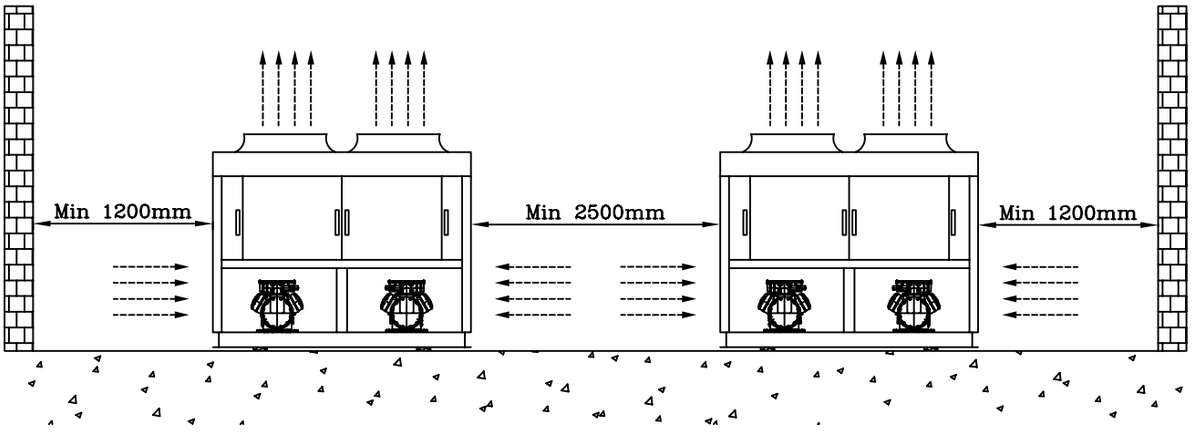
Following points should be considered for installation location of the air-cooled chillers:

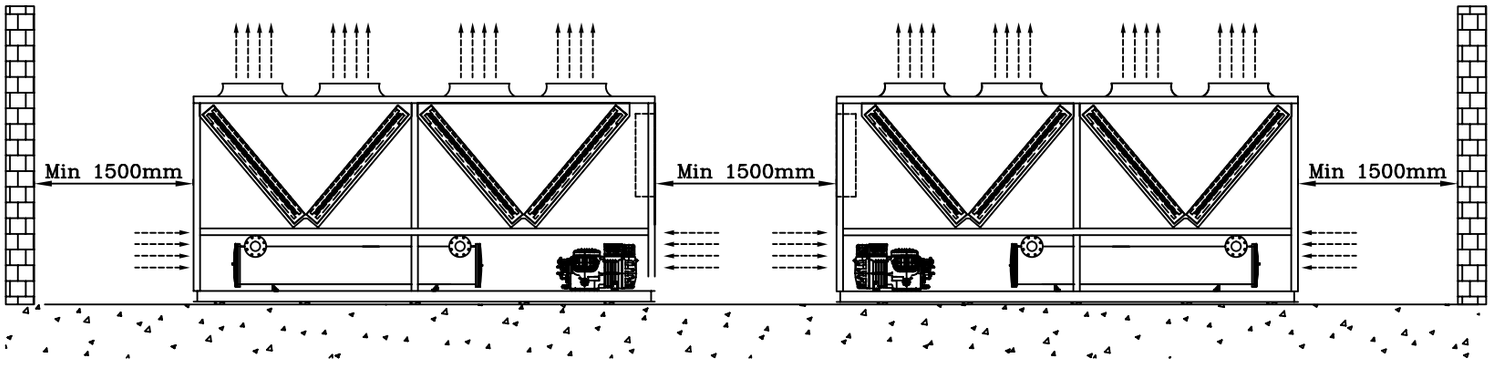
1- Do not install the unit in air shaft, courtyard, or other places which is limited for the unit or it will maximize the vibration and noise because of the echo and resonance of the wall or other obstacles.

2- Space for access to front and sides of the equipment must be provided to accommodate such maintenance and service and to permit unobstructed flow of air to and from the unit.

3- Install the air-cooled chillers in a way such that hot air distributed by the unit cannot be drawn in again (as in the case of short circuit of hot discharge air).

4- The unit should be have at least 1200 to 1500 millimeter distance from any wall or other obstacles base on following schematics:

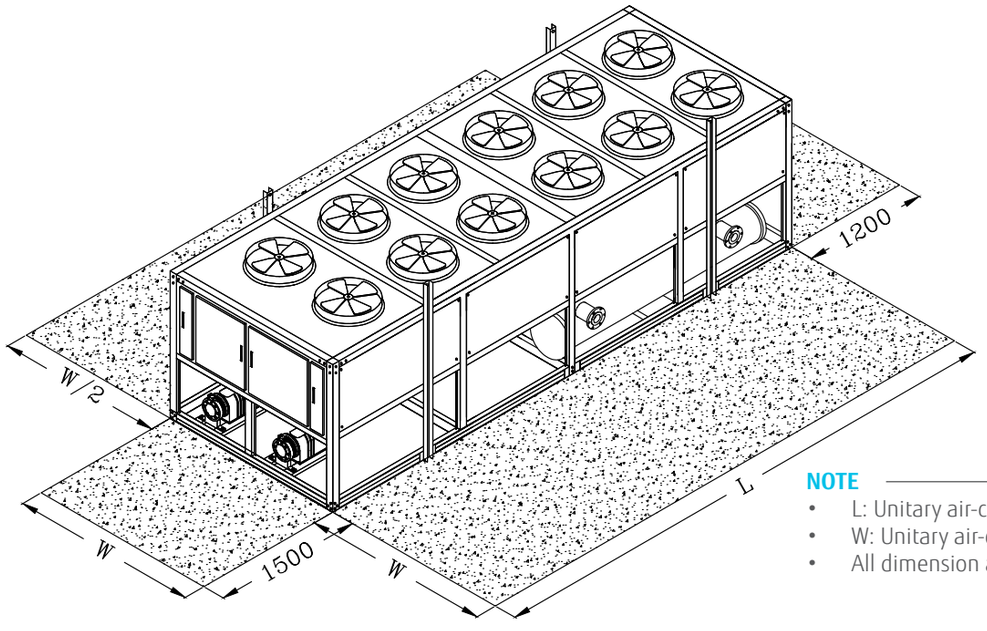




5- Ensure that there is no obstruction of airflow into or out of the unit. Remove obstacles that block air intake or discharge.

6- The location must be well ventilated, so that the unit can draw in and distribute plenty of air thus lowering the condensing temperature.

7- Set apart some service space. Space ranges are recommended in following schematics:

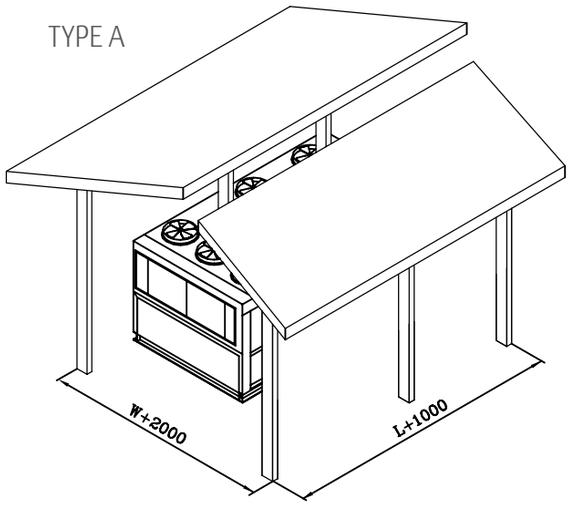


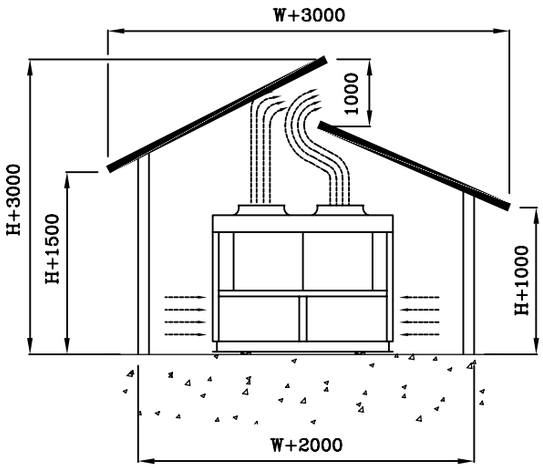
NOTE

- L: Unitary air-cooled chiller length
- W: Unitary air-cooled chiller width
- All dimension are in millimeter

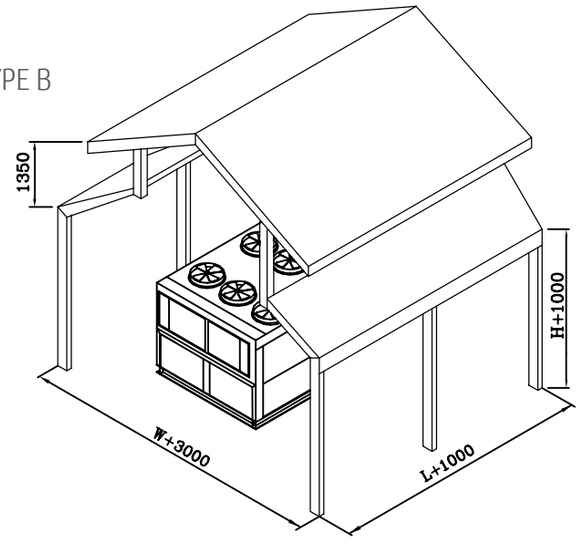
8- If the unit is installed in a high temperature environment, it is recommended to cover the unit with a shelter base on following schematic:

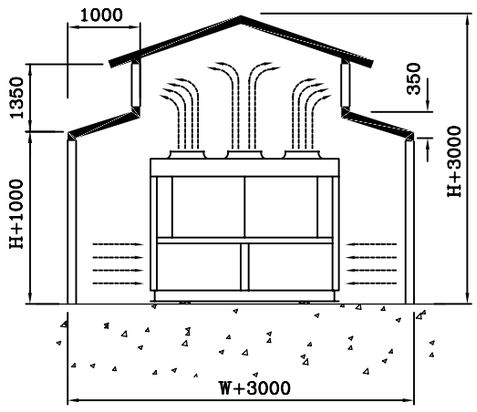
TYPE A





TYPE B





NOTE

- L: Unitary air-cooled chiller length
- W: Unitary air-cooled chiller width
- H: Unitary air-cooled chiller height
- All dimensions are in millimeter.

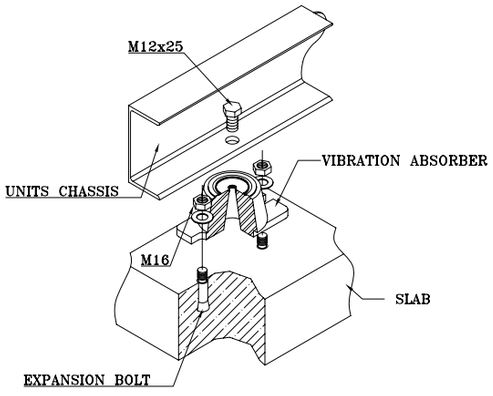
Bearing Platform

1) The unit should be installed on concrete or steel structure bearing platform that is firm and the surface of the baring platform should be smooth and flat. The intensity of the platform should hold the whole unit, if the intensity is not strong enough, it is easy to cause vibration and noise.

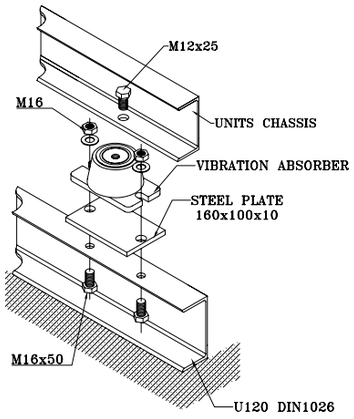
2) The surface of the concrete base platform normally has been plastered as horizontal ornament with waterproof treatment. the surrounding of it should have drainage sink placed, and the slope angle should be no less than 0.5% and the slope should lead to drainage outlet.

3) In order to maintain quiet operation and prevent the vibration and noise transmission from interfering the under floors, the absorber should be laid between the unit base and base platform. Please maintain horizontal when install the unit and mount anti vibration pad when it is necessary.

4) In order to keep connection pipe from being twisted to crack by earthquake, typhoon, or by long time running caused movement. The fixation method should be taken into consideration, refers to following examples for platform installation and fixation:



ARMOURED CEMENT FOUNDATION



STEEL FRAME FOUNDATION

Hanging and Transporting of the Unit

1- Each unit has been carefully tested and inspected at the factory where every precaution was taken to ensure that it reaches its destination in prefect condition. It is very important that the installers, movers, and riggers use the same care in handling the unit. Chains, cables, or other moving equipment should be placed to avoid damage to any part of the unit. For proper method of rigging consult the label on the unit

2- To prevent any damage to the unit, at least 45 degree angle between the unit and the hosting chain and the unit should be maintained.