

Model number nomenclature



19XRV 50 52 354 KC H 64
 19XR 52 51 473 DG H 64 -

Description

19XR — High Efficiency Hermetic Centrifugal Liquid Chiller

19XRV — Ultra High Efficiency Variable Speed Hermetic Centrifugal Liquid Chiller

Cooler Size

- 10-12 (Frame 1 XR)
- 15-17 (Frame 1 XR)
- 20-22 (Frame 2 XR)
- 30-32 (Frame 3 XR)
- 35-37 (Frame 3 XR)
- 40-42 (Frame 4 XR)
- 45-47 (Frame 4 XR)
- 50-54 (Frame 5 XR)
- 5A-5C (Frame 5 XR)*
- 55-59 (Frame 5 XR)
- 5F-5H (Frame 5 XR)*
- 5K-5R (Frame 5 XR)†
- 5T-5Z (Frame 5 XR)†
- 60-64 (Frame 6 XR)
- 6K-6R (Frame 6 XR)†
- 65-69 (Frame 6 XR)
- 6T-6Z (Frame 6 XR)†
- 70-74 (Frame 7 XR)
- 7K-7R (Frame 7 XR)†
- 75-79 (Frame 7 XR)
- 7T-7Z (Frame 7 XR)†
- 80-84 (Frame 8 XR)
- 8K-8R (Frame 8 XR)†
- 85-89 (Frame 8 XR)
- 8T-8Z (Frame 8 XR)†

Condenser Size

- 10-12 (Frame 1 XR)
- 15-17 (Frame 1 XR)
- 20-22 (Frame 2 XR)
- 30-32 (Frame 3 XR)
- 35-37 (Frame 3 XR)
- 40-42 (Frame 4 XR)
- 45-47 (Frame 4 XR)
- 50-54 (Frame 5 XR)
- 55-59 (Frame 5 XR)
- 60-64 (Frame 6 XR)
- 65-69 (Frame 6 XR)
- 70-74 (Frame 7 XR)
- 75-79 (Frame 7 XR)
- 80-84 (Frame 8 XR)
- 85-89 (Frame 8 XR)

Special Order Indicator

- — Standard
- S — Special Order

Motor Voltage Code

- Code Volts-Phase-Hertz
- 60 — 200-3-60
 - 61 — 230-3-60
 - 62 — 380-3-60
 - 63 — 416-3-60
 - 64 — 460-3-60
 - 65 — 575-3-60
 - 66 — 2400-3-60
 - 67 — 3300-3-60
 - 68 — 4160-3-60
 - 69 — 6900-3-60
 - 50 — 230-3-50
 - 52 — 400-3-50
 - 53 — 3000-3-50
 - 54 — 3300-3-50
 - 55 — 6300-3-50
 - 5A — 10000-3-50
 - 5B — 11000-3-50
 - 6A — 11000-3-60
 - 6B — 10000-3-60

Motor Efficiency Code

- H — High Efficiency
- S — Standard Efficiency

Motor Code††

Compressor Code

(First Digit Indicates Compressor Frame Size)**



ASME
'U' Stamp



Water-Cooled Chillers
 AHRI Standard 550/590
 AHRI (Air Conditioning, Heating, and Refrigeration Institute)
 Performance Certified

*Refer to 19XR, 19XRV Computer Selection Program for details on these sizes.

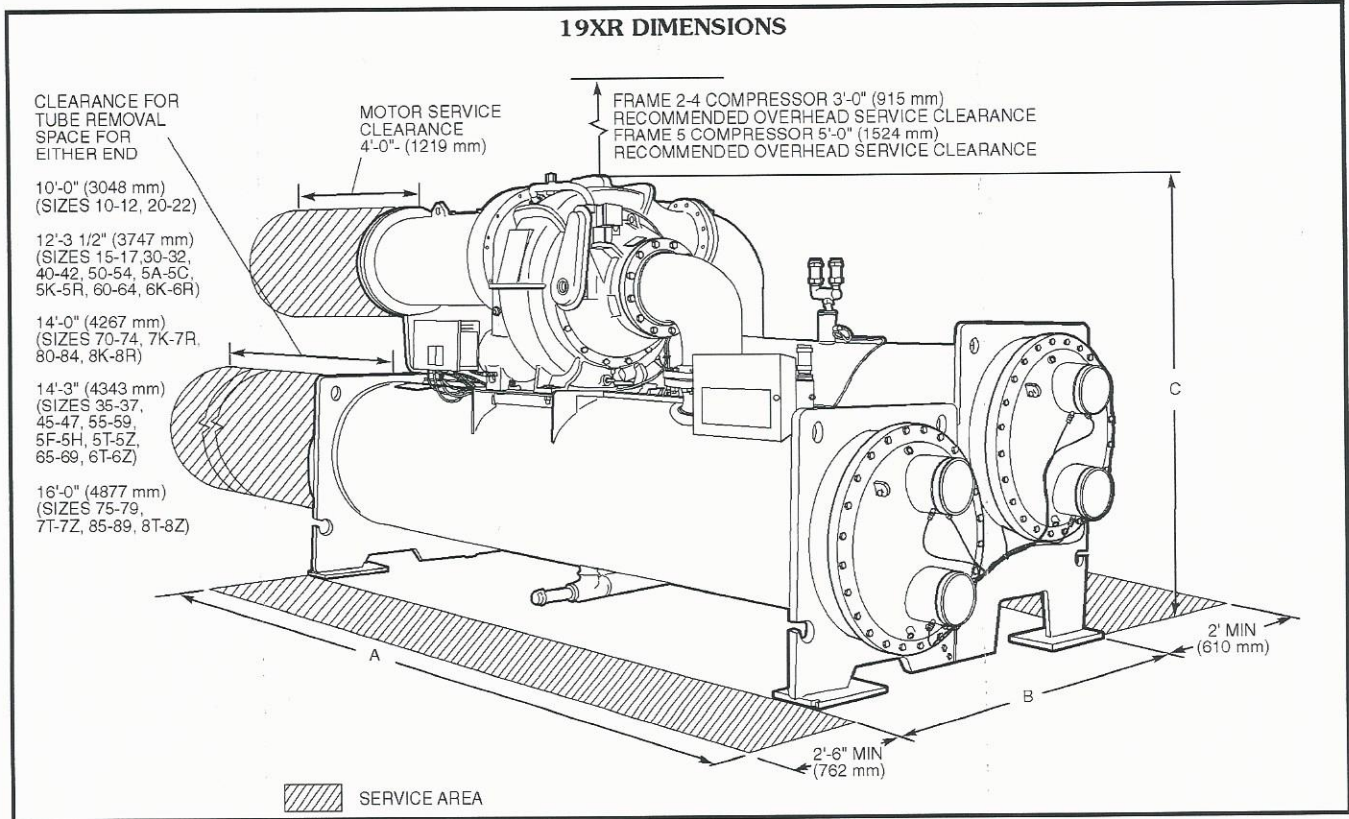
†Refer to the 19XR, 19XRV Computer Selection Program for motor code details.

** Frame sizes with K-R and T-Z are with 1 in. OD evaporator tubing.

SEISMI COMPLIANT

* Meets IBC 2006, ASCE-7-05, CBC 2007, and OSHPD seismic requirements.

Dimensions (cont)



19XR DIMENSIONS (Marine Waterbox)

HEAT EXCHANGER SIZE	A (Length, Marine Waterbox)				19XR B WIDTH		19XR V B WIDTH		19XR, XRV C HEIGHT
	2-Pass*		1 or 3-Pass†		ft-in.	mm	ft-in.	mm	
	ft-in.	mm	ft-in.	mm					
10 to 12	NA	NA	NA	NA	NA	NA	NA	NA	See Note 6
15 to 17	NA	NA	NA	NA	NA	NA	NA	NA	
20 to 22	12- 5 1/2	3797	14- 1 1/4	4299	6- 1 1/16	1856	6- 1 1/16	1856	
30 to 32	14- 9	4496	16- 4 3/4	4997	6- 1 1/16	1856	6- 1 1/16	1856	
35 to 37	16- 5 1/2	5017	18- 1 1/4	5518	6- 1 1/16	1856	6- 1 1/16	1856	
40 to 42	15- 2 3/4	4642	16- 8 1/4	5086	6- 3 1/4	1911	6- 3 1/4	1911	
45 to 47	16- 11 1/4	5163	18- 4 3/4	5607	6- 3 1/4	1911	6- 3 1/4	1911	
50 to 54, 5K to 5R	15- 3 1/2	4661	16- 8 1/2	5093	6- 8 7/8	2054	6- 8 7/8	2054	
5A to 5C	15- 3 1/2	4661	16- 8 1/2	5093	6- 8 7/8	2054	6- 8 7/8	2054	
55 to 59, 5T to 5Z	17- 0	5182	18- 5	5613	6- 8 7/8	2054	6- 8 7/8	2054	
5F to 5H	17- 0	5182	18- 5	5613	6- 8 7/8	2054	6- 8 7/8	2054	
60 to 64, 6K to 6R	15- 4 1/8	4677	16- 8 3/4	5099	6- 11 3/4	2127	6- 11 3/4	2127	
65 to 69, 6T to 6Z	17- 0 5/8	5197	18- 5 1/4	5620	6- 11 3/4	2127	6- 11 3/4	2127	
70 to 74, 7K to 7R	18- 3 5/8	5579	19- 9 3/4	6039	8- 8 1/8	2645	9- 6 3/8	2905	
75 to 79, 7T to 7Z	20- 3 5/8	6188	21- 9 3/4	6649	8- 8 1/8	2645	9- 6 3/8	2905	
80 to 84, 8K to 8R	18- 4	5583	19- 10 1/2	6058	9- 5 5/8	2886	10- 5	3175	
85 to 89, 8T to 8Z	20- 4	6198	21- 10 1/2	6668	9- 5 5/8	2886	10- 5	3175	

*Assumes both cooler and condenser nozzles on same end of chiller.

†1 or 3-pass length applies if cooler is a 1 or 3-pass design.

NOTES:

- Service access should be provided per American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) 15, latest edition, National Fire Protection Association (NFPA) 70, and local safety code.
- Allow at least 3 ft (915 mm) overhead clearance for service rigging for frame 2-4 compressor. Overhead clearance for service rigging frame 5 compressor should be 5 ft (1524 mm).
- Dimensions are approximate. Certified drawings available upon request.

- Marine waterboxes may add 6 in. (152 mm) to the width of the machine. See certified drawings for details.
- 'A' length dimensions shown are for standard 150 psig (1034 kPa) design and victaulic connections. The 300 psig (2068 kPa) design and/or flanges will add length. See certified drawings.
- 19XR, XRV heights can vary depending on the configuration. Check 19XR, XRV certified drawings for height information.
- Not all waterbox/pass combinations are available with unit-mounted VFD (variable frequency drive). Check selection program for availability.

Dimensions



19XR DIMENSIONS (Nozzle-in-Head Waterbox)

HEAT EXCHANGER SIZE	A (Length, with Nozzle-in-Head Waterbox)						19XR B (Width)		19XR C (Height)		19XRV B (Width)		19XRV C (Height)
	1-Pass		2-Pass*		3-Pass		ft-in.	mm	ft-in.	mm	ft-in.	mm	
	ft-in.	mm	ft-in.	mm	ft-in.	mm							
10 to 12	11- 11	3632	11- 4	3464	11- 11	3632	5- 2 ⁷ / ₈	1597	6- 1 ¹ / ₄	1861	5- 2 ⁷ / ₈	1597	
15 to 17	14- 2 ¹ / ₂	4331	13- 7 ¹ / ₂	4163	14- 2 ¹ / ₂	4331	5- 2 ⁷ / ₈	1597	6- 1 ¹ / ₄	1861	5- 2 ⁷ / ₈	1597	
20 to 22	12- 0 ¹ / ₂	3670	11- 5 ¹ / ₈	3483	12- 0 ¹ / ₂	3670	5- 6 ⁷ / ₁₆	1688	6- 3 ¹ / ₄	1911	5- 6 ⁷ / ₁₆	1688	
30 to 32†	14- 4	4369	13- 8 ⁵ / ₈	4182	14- 4	4369	5- 7 ⁹ / ₁₆	1707	6- 9 ⁵ / ₈	2073	5- 6 ⁷ / ₁₆	1688	
30 to 32**	14- 4	4369	13- 8 ⁵ / ₈	4182	14- 4	4369	5- 7 ⁹ / ₁₆	1707	6- 9 ⁵ / ₈	2073	5- 6 ¹ / ₈	1680	
35 to 37†	16- 0 ¹ / ₂	4889	15- 5 ¹ / ₈	4703	16- 0 ¹ / ₂	4889	5- 7 ⁹ / ₁₆	1707	6- 9 ⁵ / ₈	2073	5- 6 ⁷ / ₁₆	1688	
35 to 37**	16- 0 ¹ / ₂	4889	15- 5 ¹ / ₈	4703	16- 0 ¹ / ₂	4889	5- 7 ⁹ / ₁₆	1707	6- 9 ⁵ / ₈	2073	5- 6 ¹ / ₈	1680	
40 to 42	14- 10	4521	14- 3 ⁵ / ₈	4360	14- 6 ³ / ₄	4439	6- 3 ¹ / ₈	1908	7- 0 ³ / ₄	2153	6- 2	1880	
45 to 47	16- 6 ¹ / ₂	5042	16- 0 ¹ / ₈	4880	16- 3 ¹ / ₄	4959	6- 3 ¹ / ₈	1908	7- 0 ³ / ₄	2153	6- 2	1880	
50 to 52**	14- 11	4546	14- 5	4395	14- 7 ¹ / ₄	4451	6- 8 ⁷ / ₈	2054	7- 2 ³ / ₈	2194	6- 6 ¹ / ₂	1994	
50 to 54, 5K to 5R††	14- 11	4546	14- 5	4395	14- 7 ¹ / ₄	4451	6- 8 ⁷ / ₈	2054	7- 2 ³ / ₈	2194	6- 7 ⁷ / ₈	2029	
5A to 5C	14- 11	4546	14- 5	4395	14- 7 ¹ / ₄	4451	6- 8 ⁷ / ₈	2054	7- 2 ³ / ₈	2194	6- 8 ⁷ / ₈	2054	
55 to 57**	16- 7 ¹ / ₂	5067	16- 1 ¹ / ₂	4915	16- 3 ³ / ₄	4972	6- 8 ⁷ / ₈	2054	7- 2 ³ / ₈	2194	6- 6 ¹ / ₂	1994	
55 to 59, 5T to 5Z††	16- 7 ¹ / ₂	5067	16- 1 ¹ / ₂	4915	16- 3 ³ / ₄	4972	6- 8 ⁷ / ₈	2054	7- 2 ³ / ₈	2194	6- 7 ⁷ / ₈	2029	
5F to 5H	16- 7 ¹ / ₂	5067	16- 1 ¹ / ₂	4915	16- 3 ³ / ₄	4972	6- 8 ⁷ / ₈	2054	7- 2 ³ / ₈	2194	6- 8 ⁷ / ₈	2054	
60 to 64, 6K to 6R	15- 0	4572	14- 5 ³ / ₄	4413	14- 7 ³ / ₄	4464	6- 0 ⁵ / ₈	2124	7- 4 ³ / ₈	2245	6- 10 ⁵ / ₈	2124	
65 to 69, 6T to 6Z	16- 8 ¹ / ₂	5093	16- 2 ¹ / ₄	4934	16- 4 ¹ / ₄	4985	6- 0 ⁵ / ₈	2124	7- 4 ³ / ₈	2245	6- 10 ⁵ / ₈	2124	
70 to 74, 7K to 7R††	17- 1 ¹ / ₂	5219	16- 11 ¹ / ₂	5169	16- 10	5131	7- 11 ¹ / ₂	2426	9- 9 ¹ / ₂	2972	9- 1 ³ / ₈	2778	
70 to 74, 7K to 7R***	17- 1 ¹ / ₂	5219	16- 11 ¹ / ₂	5169	16- 10	5131	7- 11 ¹ / ₂	2426	9- 9 ¹ / ₂	2972	9- 3 ⁵ / ₈	2835	
75 to 79, 7T to 7Z	19- 1 ¹ / ₂	5829	18- 11 ¹ / ₂	5779	18- 10	5740	7- 11 ¹ / ₂	2426	9- 9 ¹ / ₂	2972	9- 3 ⁵ / ₈	2835	
80 to 84, 8K to 8R	17- 4 ¹ / ₂	5296	17- 1	5207	16- 10 ¹ / ₂	5143	8- 10 ³ / ₄	2711	9- 11 ¹ / ₄	3029	10- 0 ⁹ / ₁₆	3063	
85 to 89, 8T to 8Z	19- 4 ¹ / ₂	5905	19- 1	5817	18- 10 ¹ / ₂	5753	8- 10 ³ / ₄	2711	9- 11 ¹ / ₄	3029	10- 0 ⁹ / ₁₆	3063	

See Note 7

*Assumes both cooler and condenser nozzles on same end of chiller.

†Compressor frame size 2.

**Compressor frame size 3.

††Compressor frame size 4.

***Compressor frame size 5.

NOTES:

1. Service access should be provided per American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) 15, latest edition, National Fire Protection Association (NFPA) 70, and local safety code.
2. Allow at least 3 ft (915 mm) overhead clearance for service rigging for frame 2-4 compressor. Overhead clearance for service rigging frame 5 compressor should be 5 ft (1524 mm).

3. Dimensions are approximate. Certified drawings available upon request.

4. Marine waterboxes may add 6 in. (152 mm) to the width of the machine. See certified drawings for details.

5. 'A' length dimensions shown are for standard 150 psig (1034 kPa) design and victaulic connections. The 300 psig (2068 kPa) design and/or flanges will add length. See certified drawings.

6. Not all waterbox/pass combinations are available with unit-mounted VFD. Check selection program and Drawing Manager for availability.

7. 19XRV heights can vary depending on the configuration. Check 19XRV certified drawings for height information.



**19XR COMPRESSOR AND MOTOR WEIGHTS*—
STANDARD AND HIGH-EFFICIENCY MOTORS (cont)**

COMPRESSOR FRAME SIZE 3†

MOTOR CODE	ENGLISH						SI					
	Compressor Weight** (lb)	60 Hz		50 Hz		End Bell Cover Weight (lb)	Compressor Weight** (kg)	60 Hz		50 Hz		End Bell Cover Weight (kg)
		Stator Weight†† (lb)	Rotor Weight (lb)	Stator Weight†† (lb)	Rotor Weight (lb)			Stator Weight†† (kg)	Rotor Weight (kg)	Stator Weight†† (kg)	Rotor Weight (kg)	
STANDARD-EFFICIENCY MOTORS / LOW VOLTAGE (200-575v)												
CBS	2816	1146	219	1188	236	274	1277	520	99	539	107	124
CCS	2816	1171	227	1196	242	274	1277	531	103	542	110	124
CDS	2816	1198	237	1258	255	274	1277	543	108	571	116	124
CES	2816	1207	240	1272	258	274	1277	547	109	577	117	124
CLS	2816	1247	249	1328	273	274	1277	566	113	602	124	124
CMS	2816	1270	257	1353	278	274	1277	576	117	614	126	124
CNS	2816	1321	266	1386	282	274	1277	599	121	629	128	124
CPS	2816	1334	269	1401	287	274	1277	605	122	635	130	124
CQS	2816	1353	276	1408	290	274	1277	614	125	639	132	124
CRS	2816	1259	321	—	—	274	1277	571	146	—	—	124
CRS (380v)	2816	1328	346	—	—	274	1277	602	157	—	—	124
STANDARD-EFFICIENCY MOTORS / MEDIUM VOLTAGE (2400-4160v)												
CBS	2816	1154	236	1160	255	274	1277	523	107	526	116	124
CCS	2816	1182	243	1177	260	274	1277	536	110	534	118	124
CDS	2816	1220	252	1212	270	274	1277	553	114	550	122	124
CES	2816	1253	261	1259	281	274	1277	568	118	571	127	124
CLS	2816	1261	265	1271	284	274	1277	572	120	577	129	124
CMS	2816	1294	273	1318	293	274	1277	587	124	598	133	124
CNS	2816	1314	280	1357	303	274	1277	596	127	616	137	124
CPS	2816	1343	282	1413	308	274	1277	609	128	641	140	124
CQS	2816	1419	300	1522	336	274	1277	644	136	690	152	124
HIGH-EFFICIENCY MOTORS / LOW VOLTAGE (200-575v)												
CBH	2816	1235	239	1290	254	274	1277	560	108	585	115	124
CCH	2816	1260	249	1295	259	274	1277	572	113	587	117	124
CDH	2816	1286	258	1358	273	274	1277	583	117	616	124	124
CEH	2816	1305	265	1377	279	274	1277	592	120	625	127	124
CLH	2816	1324	271	1435	292	274	1277	601	123	651	132	124
CMH	2816	1347	275	1455	298	274	1277	611	125	660	135	124
CNH	2816	1358	278	1467	301	274	1277	616	126	665	137	124
CPH	2816	1401	290	1479	304	274	1277	635	132	671	138	124
CQH	2816	1455	304	1479	304	274	1277	670	138	671	138	124
KBH	2816	1313	276	1353	285	274	1277	596	125	614	129	124
KCH	2816	1353	285	1381	291	274	1277	614	129	626	132	124
KDH	2816	1381	291	1417	307	274	1277	626	132	643	139	124
KEH	2816	1417	307	1441	313	274	1277	643	139	654	142	124
KFH	2816	1441	313	1470	320	274	1277	654	142	667	145	124
KGH	2816	1470	320	1505	333	274	1277	667	145	683	151	124
KHH	2816	1505	333	—	—	274	1277	683	151	—	—	124

*Total compressor weight is the sum of the compressor aerodynamic components (compressor weight column), stator, rotor, and end bell cover weights.

†Compressor size number is the first digit of the compressor code. See Model Number Nomenclature on page 5.

**Compressor aerodynamic component weight only, motor weight not included. Applicable to standard compressors only. For high lift compressors, contact Carrier Chiller Marketing for weights.

††Stator weight includes the stator and shell.