

Model # SXHLF7040U10C89DAL01ABC000J0A00RT0M8600#
Serial #: C20C02226



Year: 2020
Size: 70 Tons

Installation, Operation, and Maintenance

IntelliPak™ 1

Commercial Packaged Rooftop Air Conditioners
with CV, VAV, or SZVAV Controls and eFlex™ /
eDrive™



"A" and later design sequence

SAHL *20, *25, *30, *40, *50, *55, *60, *70, *75

SEHL, SFHL, SLHL, SSSL, SXHL *20, *25, *30, *40, *50, *55, *60, *70, *75

SXHK, SEHK, SFHK, SLHK, SSK *90, *11, *12, *13

L: 32' 10 1/2"

W: 9' 8"

H: 7' 3 1/4"

Operating Weight: 9,593 lbs

▲ SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.



Model Number Description

S X H L F70 4 0 U 1 0

S*HL — 20 - 75 Ton, Air Cooled

Digit 1 — Unit Type

S = Self-Contained (Packaged Rooftop)

Digit 2 — Unit Function

- A** = DX Cooling, No Heat
- E** = DX Cooling, Electric Heat
- F** = DX Cooling, Natural Gas Heat
- L** = DX Cooling, Hot Water Heat
- S** = DX Cooling, Steam Heat
- X** = DX Cooling, No Heat, Extended Casing

Digit 3 — System Type

H = Single Zone

Digit 4 — Development Sequence

L = Sixth

Digit 5, 6, 7 — Nominal Capacity

- ***20** = 20 Ton Air Cooled
- ***25** = 25 Ton Air Cooled
- ***30** = 30 Ton Air Cooled
- ***40** = 40 Ton Air Cooled
- ***50** = 50 Ton Air Cooled
- ***55** = 55 Ton Air Cooled
- ***60** = 60 Ton Air Cooled
- ***70** = 70 Ton Air Cooled
- ***75** = 75 Ton Air Cooled

Digit 8 — Voltage Selection

- 4** = 460/60/3 XL
- 5** = 575/60/3 XL
- E** = 200/60/3 XL
- F** = 230/60/3 XL

Note: SEHL units (units with electric heat) utilizing 208V or 230V require dual power source.

Digit 9 — Heating Capacity

Note: When the second digit is "F" (Gas Heat), the following applies: (M and T are available ONLY on 50 ton and above).

- H** = High Heat — 2-Stage
- K** = Low Heat — Ultra Modulation
- L** = Low Heat — 2-Stage
- M** = Low Heat — 4 to 1 Modulation
- O** = No Heat
- P** = High Heat — 4 to 1 Modulation
- T** = High Heat — Ultra Modulation

Note: When the second digit is "E" (Electric Heat), the following applies:

- D** = 30 kW
- H** = 50 kW
- L** = 70 kW
- N** = 90 kW
- Q** = 110 kW
- R** = 130 kW
- U** = 150 kW
- V** = 170 kW
- W** = 190 kW

Note: When the second digit is "L" (Hot Water) or "S" (Steam) Heat, one of the following valve size values must be in Digit 9:

- High Heat Coil*
- 1** = 0.50 inch
 - 2** = 0.75 inch
 - 3** = 1 inch
 - 4** = 1.25 inches
 - 5** = 1.5 inches
 - 6** = 2 inches

- Low Heat Coil*
- A** = 0.50 inch
 - B** = 0.75 inch
 - C** = 1 inch
 - D** = 1.25 inches
 - E** = 1.5 inches
 - F** = 2 inches

Digit 10 — Design Sequence

A = First (Factory Assigned)

Note: Sequence may be any letter A thru Z, or any digit 1 thru 9.

Digit 11— Exhaust/Return Option

- 0** = None
- 1** = Barometric
- 3** = 100% Exhaust 3 HP w/Statitrac
- 4** = 100% Exhaust 5 HP w/Statitrac
- 5** = 100% Exhaust 7.5 HP w/Statitrac
- 6** = 100% Exhaust 10 HP w/Statitrac
- 7** = 100% Exhaust 15 HP w/Statitrac
- 8** = 100% Exhaust 20 HP w/Statitrac
- B** = 50% Exhaust 3 HP
- C** = 50% Exhaust 5 HP
- D** = 50% Exhaust 7.5 HP
- F** = 100% Exhaust 3 HP w/o Statitrac (CV Only)
- G** = 100% Exhaust 5 HP w/o Statitrac (CV Only)
- H** = 100% Exhaust 7.5 HP w/o Statitrac (CV Only)
- J** = 100% Exhaust 10 HP w/o Statitrac (CV Only)
- K** = 100% Exhaust 15 HP w/o Statitrac (CV Only)
- L** = 100% Exhaust 20 HP w/o Statitrac (CV Only)
- 9** = 100% Return 3 HP w/Statitrac
- M** = 100% Return 5 HP w/Statitrac
- N** = 100% Return 7.5 HP w/Statitrac
- P** = 100% Return 10 HP w/Statitrac
- R** = 100% Return 15 HP w/Statitrac
- T** = 100% Return 20 HP w/Statitrac
- U** = 100% Return 3 HP w/o Statitrac (CV Only)
- V** = 100% Return 5 HP w/o Statitrac (CV Only)
- W** = 100% Return 7.5 HP w/o Statitrac (CV Only)
- X** = 100% Return 10 HP w/o Statitrac (CV Only)
- Y** = 100% Return 15 HP w/o Statitrac (CV Only)
- Z** = 100% Return 20 HP w/o Statitrac (CV Only)

Digit 12— Exhaust/Return Air Fan Drive

(Exhaust/Return Fan)

- 0** = None
- 4** = 400 RPM
- 5** = 500 RPM
- 6** = 600 RPM
- 7** = 700 RPM
- 8** = 800 RPM
- 9** = 900 RPM
- A** = 1000 RPM
- B** = 1100 RPM



Model Number Description

C89DAL01A

Digit 12— Exhaust/Return Option (continued)

(Return Fan Only)

- C = 1200 RPM
- D = 1300 RPM
- E = 1400 RPM
- F = 1500 RPM
- G = 1600 RPM
- H = 1700 RPM
- J = 1800 RPM
- K = 1900 RPM

Digit 13 — Filter (Pre DX/Final)

- A = Throwaway
- B = Cleanable Wire Mesh
- C = High Efficiency Throwaway
- D = Bag with Prefilter
- E = Cartridge with Prefilter
- F = Throwaway Filter Rack (Filter not included)
- G = Bag Filter Rack (Filter Not Included)
- H = Standard Throwaway Filter/Cartridge Final Filters
- J = High Efficiency Throwaway Filter/Cartridge Final Filters
- K = Bag Filters with 2-inch Throwaway Prefilters/Cartridge Final Filters
- L = Cartridge Filters with 2-inch Throwaway Prefilters /Cartridge Final Filters
- M = Standard Throwaway Filter/Cartridge Final Filters with 2"Throwaway Prefilters
- N = High Efficiency Throwaway Filters/Cartridge Final Filters with 2"Throwaway Prefilters
- P = Bag Filters with Prefilters/Cartridge Final Filters with 2-inch Throwaway Prefilters
- Q = Cartridge Filters with Prefilters/Cartridge Final Filters with 2-inch Throwaway Prefilters
- R = High Efficiency Throwaway/Final filter rack (no filters)
- T = 2 inch and 1 inch Vertical Filter Rack (no filters) /Final Filter Rack (no filters)

Digit 14 — Supply Air Fan HP

- 1 = 3 HP FC
- 2 = 5 HP FC
- 3 = 7.5 HP FC
- 4 = 10 HP FC
- 5 = 15 HP FC
- 6 = 20 HP FC
- 7 = 25 HP FC
- 8 = 30 HP FC
- 9 = 40 HP FC
- A = 50 HP FC
- B = 3 HP DDP 80W
- C = 3 HP DDP 120W
- D = 5 HP DDP 80W
- E = 5 HP DDP 120W

Digit 14 — Supply Air Fan HP (continued)

- F = 7.5 HP DDP 80W
- G = 7.5 HP DDP 120W
- H = 10 HP DDP 80W (60-89T = 2 x 5 HP)
- J = 10 HP DDP 120W (60-89T = 2 x 5 HP)
- K = 15 HP DDP 80W (60-89T = 2 x 7.5 HP)
- L = 15 HP DDP 120W (60-89T = 2 x 7.5 HP)
- M = 20 HP DDP 80W (60-89T = 2 x 10 HP)
- N = 20 HP DDP 120W (60-89T = 2 x 10 HP)
- P = 25 HP DDP 80W
- R = 25 HP DDP 120W
- T = 30 HP DDP 80W (60-89T = 2 x 15 HP)
- U = 30 HP DDP 120W (60-89T = 2 x 15 HP)
- V = 40 HP DDP 80W(60-89T = 2 x 20 HP)
- W = 40 HP DDP 120W (60-89T = 2 x 20 HP)
- X = 50 HP DDP 80W (70 and 75-89T = 2 x 25 HP)
- Y = 50 HP DDP 120W (70 and 75-89T = 2 x 25 HP)
- Z = 30 HP DDP 100W

Digit 15 — Supply Air Fan RPM

- 4 = 400 RPM
- 5 = 500 RPM
- 6 = 600 RPM
- 7 = 700 RPM
- 8 = 800 RPM
- 9 = 900 RPM
- A = 1000 RPM
- B = 1100 RPM
- C = 1200 RPM
- D = 1300 RPM
- E = 1400 RPM
- F = 1500 RPM
- G = 1600 RPM
- H = 1700 RPM
- J = 1800 RPM
- K = 1900 RPM
- L = 2000 RPM
- M = 2100 RPM
- N = 2200 RPM
- P = 2300 RPM
- R = 2400 RPM

Digit 16 — Outside Air

- A = No Fresh Air
- B = 0-25% Manual
- D = 0-100% Economizer
- E = 0-100% Economizer w/ Traq/DCV
- F = 0-100% Economizer w/DCV

Note: Must install CO₂ sensor(s) for DCV to function properly.

Digit 17 — System Control

- 1 = CV - Zone Temp Control
- 2 = CV - Discharge Temp Control
- 4 = CV - Zone Temp Control Space Pressure Control w/ Exhaust/Return VFD w/o Bypass
- 5 = CV - Zone Temp Control Space Pressure Control w/ Exhaust/Return VFD and Bypass
- 6 = VAV Discharge Temp Control w/ VFD w/o Bypass
- 7 = VAV Discharge Temp Control w/ VFD and Bypass
- 8 = VAV Discharge Temp Control Supply and Exhaust/Return Fan w/ VFD w/o Bypass
- 9 = VAV Discharge Temp Control Supply and Exhaust/Return Fan with VFD and Bypass
- A = VAV - Single Zone VAV - w/VFD w/o Bypass
- B = VAV - Single Zone VAV - w/VFD and Bypass
- C = VAV - Single Zone VAV - Supply and Exhaust/Return Fan w/ VFD w/o Bypass
- D = VAV - Single Zone VAV - Supply and Exhaust/Return Fan w/ VFD w/ Bypass

Digit 18 — Zone Sensor

- 0 = None
- A = Dual Setpoint Manual or Auto Changeover (BAYSENS108*)
- B = Dual Setpoint Manual or Auto Changeover w/ System Function Lights (BAYSENS110*)
- C = Room Sensor w/ Override/Cancel Buttons (BAYSENS073*)
- D = Room Sensor w/ Temp Adjustment/Override/Cancel Buttons (BAYSENS074*)
- L = Programmable Zone Sensor w/ System Function Lights for CV/SZVAV/VAV (BAYSENS119*)

Note: *Asterisk indicates current model number digit. These sensors can be ordered to ship with the unit.

Digit 19 — Ambient Control

- 0 = Standard
- 1 = 0° Fahrenheit

Digit 20 — Agency Approval

- 0 = None (cULus Gas Heater, see note)
- 1 = cULus

Note: Includes cULus classified gas heating section only when second digit is a "F."

Digit 21 — Miscellaneous Options

- 0 = Unit Mounted Terminal Block
- A = Unit Disconnect Switch
- B = Unit Disconnect Switch w/ high fault SCCR

Digit 22 — Refrigeration Options

- B** = Hot Gas Bypass
- C** = Hot Gas Reheat w/out Hot Gas Bypass
- D** = Hot Gas Reheat and Hot Gas Bypass

Digit 23 — Economizer Control Options

- O** = Without Economizer
- C** = Economizer Control w/ Comparative Enthalpy
- W** = Economizer Control w/ Dry Bulb
- Z** = Economizer Control w/ Reference Enthalpy

Digit 24 — Damper Options

- E** = Low Leak Economizer Dampers
- U** = Ultra Low Leak Economizer Dampers and Ultra Low Leak motorized exhaust dampers when exhaust/return option includes motorized dampers

Digit 25 — Miscellaneous Options

- F** = High Duct Temp Thermostat

Digit 26 — Capacity/Efficiency Options

- D** = Digital Scroll (20-30 Ton)
- G** = High Capacity Unit
- H** = High Efficiency Unit
- V** = eFlex™ Variable Speed Compressor (40-75 Ton)

Digit 27 — Condenser Options

- A** = Evap Condenser
- B** = Evap Condenser w/ Sump Heater
- C** = Evap Condenser w/ Dolphin WaterCare System
- D** = Evap Condenser w/ Sump Heater and Dolphin WaterCare System
- E** = Evap Condenser w/ Conductivity Controller
- F** = Evap Condenser w/ Conductivity Controller and Sump Heater
- O** = Air Cooled Aluminum Condenser Coil
- J** = Corrosion Protected Condenser Coil

Digit 28 — Control Options

- B** = GBAS 0-10V
- K** = GBAS 0-5V
- R** = Rapid Restart

Digit 29 — Miscellaneous Options

- A** = Motors w/ Internal Shaft Grounding

Digit 30 — Miscellaneous Options

- M** = Remote Human Interface

Digit 31 — Miscellaneous Options

- N** = Ventilation Override Module

Digit 32 — Service Options

- 0** = None
- R** = Extended Grease Lines
- 1** = Differential Pressure Gauge
- 2** = Extended Grease Lines and Differential Pressure Gauge
- 3** = Stainless Steel Sloped Drain Pan
- 4** = Stainless Steel Sloped Drain Pan with Grease Lines
- 5** = Stainless Steel Sloped Drain Pan with Filter Gauge
- 6** = Stainless Steel Sloped Drain Pan with Grease Lines and Filter Gauge

Digit 33 — Cabinet Options

- 0** = Standard Panels
- 1** = Standard Panels w/ Double Wall
- T** = Hinged Access Doors
- 2** = Hinged Access Doors w/ Double Wall
- U** = IRU - w/ Std Panels
- 3** = IRU - w/ Std Panels w/ Double Wall
- W** = IRU - w/ Hinged Access Doors
- 4** = IRU - w/ Hinged Access Doors w/ Double Wall
- Y** = IRU w/SST - w/ Std Panels
- 5** = IRU w/SST - w/ Std Panels w/ Double Wall
- Z** = IRU w/SST - w/ Hinged Access Doors
- 6** = IRU w/SST - w/ Hinged Access Doors w/ Double Wall

Digit 34 — Miscellaneous Options

- V** = Inter-Processor Communication Bridge

Digit 35 — BAS/Communication Options

- M** = BACnet® Communication Interface (BCI) Module
- Y** = Trane® Communication Interface (TCI) Module
- 7** = Trane® LonTalk® Communication Interface (LCI) Module

Digit 36 — Miscellaneous Options

- 8** = Spring Isolators

Digit 37 — Miscellaneous Options

- 6** = Factory-Powered 15A GFI Convenience Outlet/Disconnect Switch

Digit 38 — Miscellaneous Options

- A** = Supply Fan Piezometer

Notes: Example

Model numbers:
SAH-
L*5040A68A6BD800100W00G0-
B000R000800 describes a unit with the following characteristics:

- DX Cooling Only unit w/ no extended casing
 - 50 ton nominal cooling capacity
 - 460/60/3 power supply
 - 100% exhaust with Statitrac
 - 10 HP exhaust fan motor with drive selection No. 8 (800 RPM)
 - throwaway filters
 - 20 HP supply fan motor with drive selection No. B (1100 RPM)
 - 0-100% economizer w/ dry bulb control
 - supply and exhaust VFD w/o bypass
 - no remote panel
 - standard ambient control
 - cULus agency approval
 - extended grease lines
 - spring isolators
- The service digit for each model number contains 38 digits. All 38 digits must be referenced.

Dimensional Data

Figure 10. Unit dimensions, SEHL, SFHL, SLHL, SSSL, SXHL units (20 to 89 ton)

Note: Use the following two tables for air cooled and evaporative condensing dimensions. Use [Table 12, p. 37](#) for CPVC furnace drain dimensions.

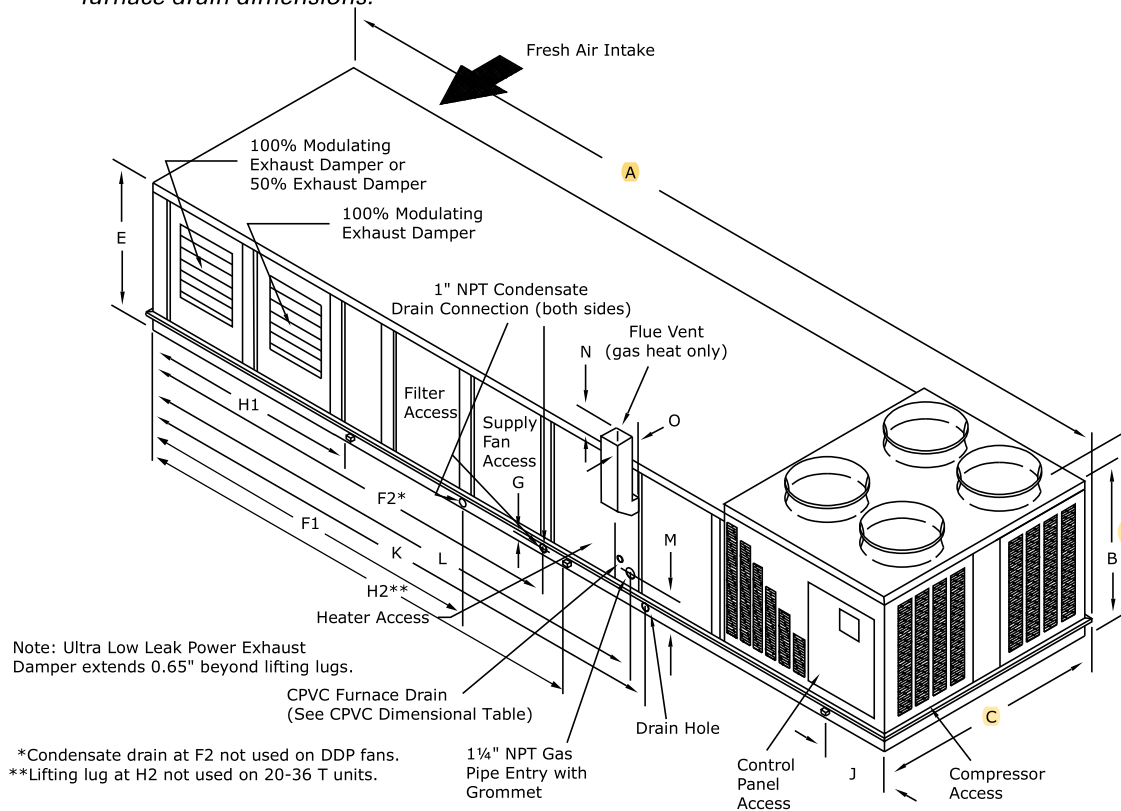


Table 10. Unit dimensions, SEHL, SFHL, SLHL, SSSL, SXHL units (20 to 89 ton) – air cooled

Nom. Tons	A	B	C	D	E	F1	F2	G	H1	H2	J	K	L	M	N	O
20, 25	24'-1 3/8"	6'-9"	7'-6 1/2"	7'-3 1/4"	3'-9 5/16"	10'-7"	13'-3"	1"	7'	N/A	1'-3 1/2"	16'-7"	16'-6"	8 1/8"	6 1/4"	9"
30	24'-1 3/8"	6'-9"	7'-6 1/2"	7'-3 1/4"	4'-9 5/16"	10'-7"	13'-3"	1"	7'	N/A	1'-3 1/2"	16'-7"	16'-6"	8 1/8"	6 1/4"	9"
40	32'-10 1/2"	6'-9"	7'-6 1/2"	7'-3 1/4"	5'-9 5/16"	12'-1 1/8"	15'-4 5/16"	1"	8'	16'-2 5/16"	2'-5"	19'-7"	See Note	8 1/8"	6 1/4"	9"
50, 55	32'-10 1/2"	6'-9"	7'-6 1/2"	7'-3 1/4"	6'-9 5/16"	12'-1 1/8"	15'-4 5/16"	1"	8'	16'-2 5/16"	2'-5"	19'-7"	See Note	8 1/8"	6 1/4"	9"
60	32'-10 1/2"	6'-9"	9'-8"	7'-3 1/4"	5'-9 5/16"	12'-1 1/8"	15'-4 5/16"	1"	8'	16'-2 5/16"	2'-5"	19'-7"	See Note	8 1/8"	6 1/4"	9"
70, 75	32'-10 1/2"	6'-9"	9'-8"	7'-3 1/4"	5'-9 5/16"	12'-1 1/8"	15'-4 5/16"	1"	8'	16'-2 5/16"	2'-5"	19'-7"	See Note	8 1/8"	6 1/4"	9"

Table 11. Unit dimensions, SEHL, SFHL, SLHL, SSSL, SXHL units (20 to 89 ton) – evaporative condensing

Nom. Tons	A	B	C	D	E	F1	F2	G	H1	H2	J	K	L	M	N	O
24, 29	26'-5 1/2"	6'-9"	7'-6 1/2"	8'-4 3/4"	3'-9 5/16"	10'-7"	13'-3"	1"	7'	N/A	1'-3 1/2"	16'-7"	16'-6"	8 1/8"	6 1/4"	9"
36	26'-5 1/2"	6'-9"	7'-6 1/2"	8'-4 3/4"	4'-9 5/16"	10'-7"	13'-3"	1"	7'	N/A	1'-3 1/2"	16'-7"	16'-6"	8 1/8"	6 1/4"	9"
48	32'-10 1/2"	6'-9"	7'-6 1/2"	8'-4 3/4"	5'-9 5/16"	12'-1 1/8"	15'-4 5/16"	1"	8'	16'-2 5/16"	2'-5"	19'-7"	See Note	8 1/8"	6 1/4"	9"
59	32'-10 1/2"	6'-9"	7'-6 1/2"	8'-4 3/4"	6'-9 5/16"	12'-1 1/8"	15'-4 5/16"	1"	8'	16'-2 5/16"	2'-5"	19'-7"	See Note	8 1/8"	6 1/4"	9"
73	32'-10 1/2"	6'-9"	9'-8"	8'-4 3/4"	5'-9 5/16"	12'-1 1/8"	15'-4 5/16"	1"	8'	16'-2 5/16"	2'-5"	19'-7"	See Note	8 1/8"	6 1/4"	9"
80, 89	32'-10 1/2"	6'-9"	9'-8"	8'-4 3/4"	5'-9 5/16"	12'-1 1/8"	15'-4 5/16"	1"	8'	16'-2 5/16"	2'-5"	19'-7"	See Note	8 1/8"	6 1/4"	9"

Note: 19'-6" for SFHL "High Heat" units or 20'-3" for SFHL "Low Heat" units.



Weights

Table 18. Air-cooled condenser - approximate operating weights (lbs.)

Unit	Without Exhaust Fan					With Exhaust Fan				
	SA	SX	SE	SF	SL/SS	SA	SX	SE	SF	SL/SS
20	4578	4899	5164	5419	5289	4970	5290	5555	5810	5680
25	4582	4902	5167	5422	5292	4984	5304	5569	5824	5694
30	5005	5351	5616	5871	5741	5580	5926	6191	6446	6316
40	7090	7445	7770	8160	7980	7886	8241	8566	8956	8776
50	7504	7954	8279	8669	8489	8393	8843	9168	9558	9378
55	7504	7954	8279	8669	8489	8393	8843	9168	9558	9378
60	8775	9421	9746	10236	10231	9902	10548	10872	11363	11358
70	8948	9593	9918	10408	10403	11075	10721	11045	11534	11530
75	9280	9926	10251	10741	10736	10407	11053	11378	11868	11863
90	x	12493	12648	13293	13343	x	13831	13986	14631	14681
105	x	13126	13281	13926	13976	x	14464	14619	15264	15314
115	x	13330	13485	14130	14180	x	14668	14823	15468	15518
130	x	13616	13771	14416	14466	x	14954	15109	15754	15829

Notes:

- Weights shown are for air-cooled units with standard capacity, standard efficiency and include the following features: FC fans, VFD(s), standard scroll compressors, 100% economizer, throwaway filters, maximum motor sizes, 460V XL start, high capacity heat.
- Weights shown represent approximate operating weights and have a ±10% accuracy. To calculate weight for a specific unit configuration, utilize TOPSS™ or contact the local Trane® sales representative. ACTUAL WEIGHTS ARE STAMPED ON THE UNIT NAMEPLATE.

Table 19. Evaporative Condenser - approximate operating weight (lbs.)

Unit	Without Exhaust Fan				With Exhaust Fan			
	SX	SE	SF	SL/SS	SX	SE	SF	SL/SS
24	6549	6679	6944	6763	6907	7037	7302	7121
29	6599	6729	6994	6813	6963	7093	7358	7177
36	7121	7251	7513	7335	7538	7668	7933	7752
48	9001	9156	9631	9359	9585	9740	10215	9943
59	9213	9368	9843	9571	9856	10011	10486	10214
73	11303	11458	11933	11691	12128	12283	12758	12516
80	11430	11585	12060	11818	12255	12410	12885	12643
89	11820	11975	12450	12208	12645	12800	13275	13033

Notes:

- Weights shown for evaporative condensing units include the following features: high capacity evaporative coil and the weight of the extra structure associated with the two piece unit. Add 520 lbs for 24, 29, 36, 48 and 59 units and 680 lbs for 73, 80 and 89 units for installed sump base water weight for evaporative-cooled condenser total operating weight.
- Weights shown represent approximate operating weights and have a ±10% accuracy. To calculate weight for a specific unit configuration, utilize TOPSS™ or contact the local Trane sales representative. ACTUAL WEIGHTS ARE STAMPED ON THE UNIT NAMEPLATE.