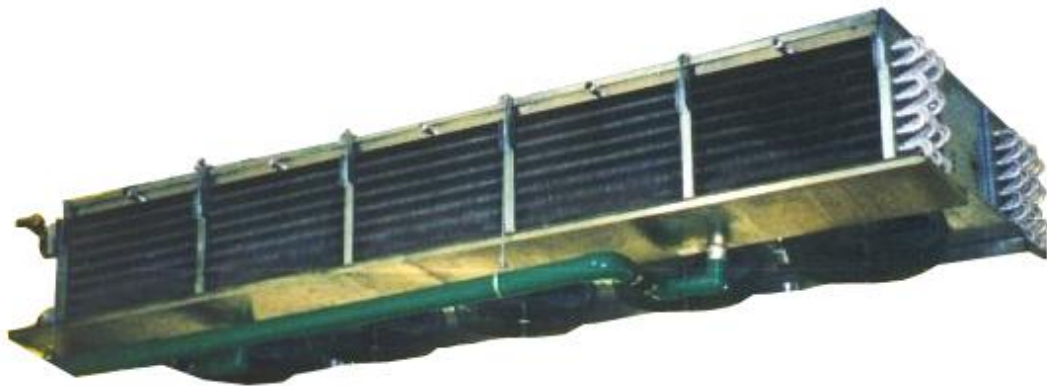


LV - INDUSTRIAL COOLERS, LOW VELOCITY

270 Models

Ammonia, Halocarbon, and Glycol Refrigerants
1.3 to 23 Tons Refrigeration (4.5 to 81 kW)
2800 to 32250 CFM (1321 to 15219L/s)



Air Defrost • Hot Gas Defrost • Water Defrost
• Medium and High Temperature

“The Heat Transfer Experts”

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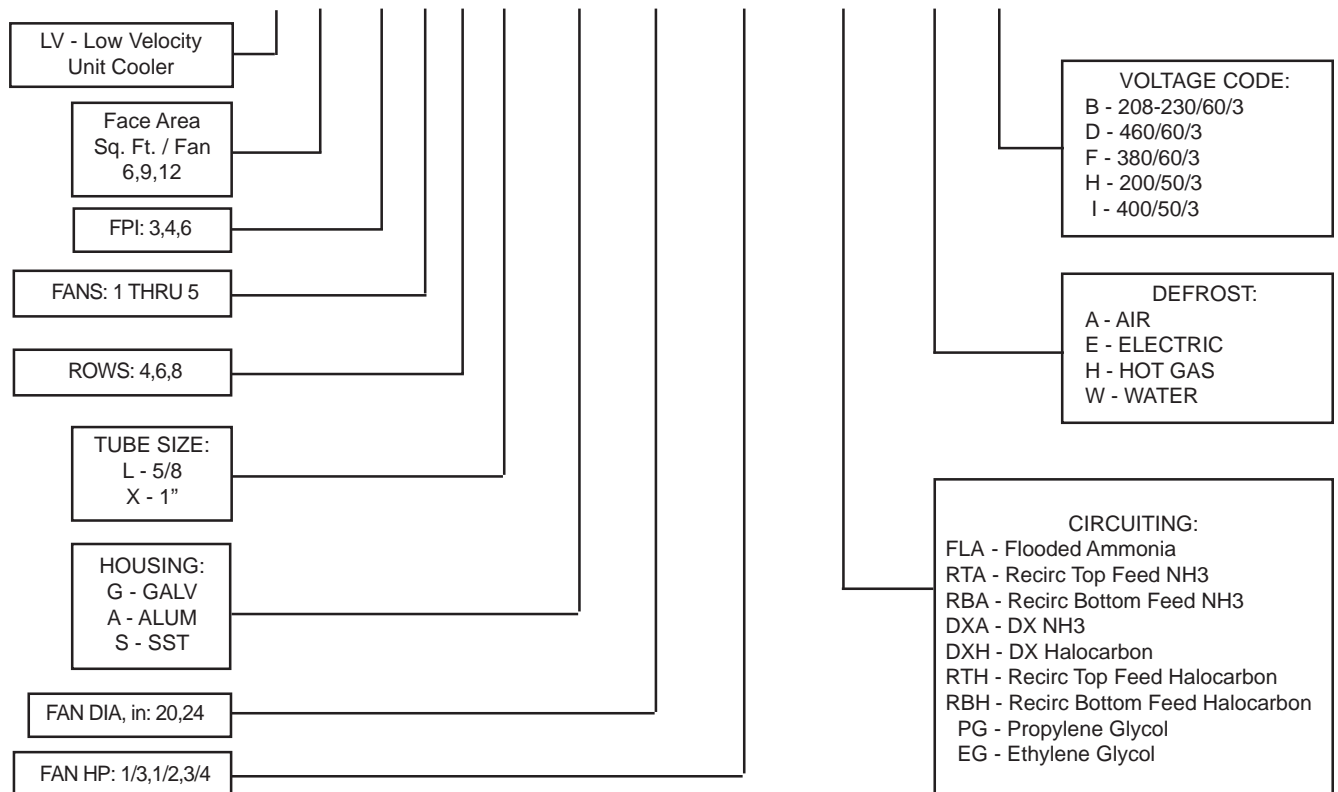
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MODEL NOMENCLATURE

LV 9 - 4 2 4 X - G - 24 - 1/2 - FLA - H - B



ENGINEERING SPECIFICATIONS

I. EVAPORATORS — GENERAL

Coil - Is dual-core, with split, horizontal airflow from “blow-through” vertical propeller fan.

Ammonia - FL and RB: To be constructed with 1” OD x .065” wall seamless drawn Aluminum tubing.

Ammonia - RT and DX: To be constructed with 5/8” OD x .049” seamless drawn Aluminum tubing.

Halocarbon - FL and RB: To be constructed of 1” x .035” wall seamless, Copper tubing.

Halocarbon - RT and DX: To be constructed with 5/8” x .025” seamless, Copper tubing.

****Glycol**: To be constructed with 5/8” x .025” seamless, Copper tubing.

****Consult Factory for Performance Ratings.**

- **Fins** - Shall be aluminum 1100 alloy. Fins shall be continuous flat plate type with full length, self-spacing collars. Tubes to be staggered in direction of airflow, expanded into fin collars to form a tight mechanical bond between tube and fin.
- **Headers - Ammonia**: Shall be made of schedule 40 (minimum) Aluminum pipe. All joints TIG welded.
Halocarbon: Shall be made of Type “L” Copper. All joints brazed with 5% Silver Solder.
- **Coil Connections - Ammonia** - Shall be aluminum flange unions. (Dielectric bushing and washers which will electrically isolate aluminum coil flanges from the supplied mating steel socket weld flanges, are optional.) Halocarbon - Copper “sweat.”
- **Ammonia Coils** - Shall be tested for leaks after welding at 500 psig (35 bar) with dry air under water.
Halocarbon coils - Shall be tested for leaks after welding at 350 psig (25 bar) with dry air under water.
- **Fans & Motors** - Propeller fans constructed of Aluminum blades on steel spiders. 20” (508mm) and 24” (610mm) diameter fans are driven at 1140/950 RPM @ 60/50 Hz. Fan motors to be TEAO, with ball bearings and internal thermal protection.
- **Cabinet** - Standard construction is of 16 Ga. Galvanized Steel. (Special materials are also available. See “Optional Features”). Removable Water Distribution pans (Water Defrost) and Air Baffles (Air & Hot-Gas Defrost), are made of 0.050 Aluminum.
- **Drainpans** - Shall be made of welded Aluminum. Insulated Drainpan and galvanized steel cover may also be specified. (Standard for Hot-Gas defrost with pan loop).

Note: **Insulated Drain Pans** are required by the USDA for meat processing.

II. CIRCUITING

- **Liquid Overfeed Circuiting** - RB (Recirc. Bottom Feed) and RT (Recirc. Top Feed) coils are circuited cross-flow. Liquid overfeed orifices shall be used at each circuit entrance, sized for 5 psi pressure drop to insure good liquid distribution.
- **Flooded Circuiting** — FL (Gravity Flooded) coils are circuited cross-flow, bottom feed.
- **Direct Expansion Circuiting** — DX coils are circuited counterflow to produce superheated refrigerant on last pass. (Required for expansion valve operation).

III. DEFROST

- **Hot Gas (HG) Defrost** — Standard HG Defrost shall be coil only. Optional HG drainpan defrost shall be a serpentine circuit of round tubing placed in good thermal contact with bottom of pan. Hot Gas pan circuit connections are made within the boundaries of the drainpan to provide full containment of condensate. Hot-Gas circuit shall be mounted outside the drainpan, insulated and protected by a galvanized steel cover.
- **Water (W) Defrost** — Coil to be arranged for water defrosting. Water shall be distributed evenly over the entire coil surface (excluding return bends and headers) by removable, Aluminum pans mounted above the fins.
- **Electric Defrost** — Coil to be arranged for electric defrosting. Heater elements are placed in good thermal contact with bottom of drainpan. Additional heater elements are placed across the bottom of the fins, and interspersed through the coil. (Also inside an insulated area surrounding the liquid distributor, DX only). Electrical connections are made via terminal blocks in a non-condensing location.

IV. APPROVED VENDOR

- **Approved Vendor** — Colmac Coil Manufacturing, Inc. **Model: LV** _____

V. ORDERING INFORMATION

- **Please Specify**
 1. Complete model number.
 2. Saturated suction temperature.
 3. Room temperature.
 4. Overfeed ratio (if pump recirculated).
 5. Options or special features.

OPTIONAL FEATURES

- ¹Dual circuiting for capacity control.
- ¹Corrosion resistant fin coatings.
- ¹Variable fin spacing for heavy frost conditions.
First row on 4 row coils and first 2 rows on 6 & 8 row coils are 2 FPI, remaining rows of coil are 4 FPI.
- Stainless steel or all Aluminum cabinet.
- Dielectric steel flanges & bolts.
- ¹Electric Defrost.
- Heated and Insulated Drainpan, Hot Gas Defrost.
- Insulated Drainpan, (Air and Water Defrost, Coil Only Hot-Gas Defrost)
- ¹Fan Speed Controls, Single and three phase

(¹Consult Factory for more information)

APPLICATION GUIDELINES

LV Unit Coolers - Are suitable for refrigerated storage areas where low air velocity and equipment height is desired. LV Unit Coolers are particularly well suited for populated work areas, or larger walk-in coolers. Standard units may be operated with wet fins, since their air velocities do not permit moisture carry-over.

Fan Motor Heat - Is not included in the ratings and should be added to room cooling load as follows:

English		SI	
HP	Btu / (HP*hr)	kW	Watts / kW
1/8 to 1/2	4250	0.1 to 0.4	1670
3/4 to 3	3700	0.6 to 2.2	1454
5 to 20	2950	3.7 to 14.9	1159

Low TD's - Approx. 10°F (6°C) - are recommended for high humidity applications such as Carcass Chillers and Wet Produce storage.

- Carcass Chilling requires a higher initial refrigeration capacity; removing body heat raises initial TD during pull-down. Size liquid lines for anticipated maximum load.

Recommended Coil Circuiting

RB - Pump Recirculated, Bottom Feed - Is recommended when using hot gas defrost systems. The coil should always have hot gas fed at the top (suction) to ensure good liquid and oil drainage during defrost.

RT - Pump Recirculated, Top Feed - Is recommended for air and water defrost systems. Although not recommended, top Feed can also be used in hot gas defrost systems provided hot gas is fed into the liquid header at the top of the coil. Gas flowing through the liquid feed orifices will experience some pressure drop, which will penalize defrost performance.

Note: Liquid Overfeed Systems - Must provide liquid at 5 psi (35 kPa) above suction pressure and at a temperature not exceeding 30°F (17°C) above saturated suction temperature.

FL - Gravity Flooded, Bottom Feed - Is typically cost-effective for small systems (4 evaporators or less), and is recommended when a variable load exists. May be used with Hot Gas Defrost, provided the coil has hot gas fed into the suction header to ensure good liquid and oil drainage during defrost.

DX - Direct Expansion Feed - Should not be used on Ammonia systems when saturated suction temperature is 0°F (-18°C) or less. For best results, DX coils should be used with a minimum TD of 12 to 15°F (7 to 9°C) for Ammonia, and a minimum TD of 6 to 10°F (4 to 6°C) for Halocarbon.

Recommended Circuiting / Defrost Combinations

Circuiting	Defrost Configuration			
	Hot Gas	Water	Air	Electric
FLA / FLH	✓	✓	✓	N/R
RBA / RBH	✓	✓	✓	N/R
RTA / RTH	N/R	✓	✓	✓
DXA / DXH	✓	✓	✓	✓

AMMONIA & R-22 RATINGS, ENGLISH UNITS
English Capacities of Colmac LV Series Refrigeration Equipment
(Generated at 30°F EADB, 0.90 Sens. Heat Ratio)

Model	Fans	Rows	Fan Dia.	Horsepower		Face Area (ft ²)	4 FPI						6 FPI					
							Air Flow		Btuh / °TD		Btuh / °TD		Air Flow		Btuh / °TD		Btuh / °TD	
							CFM	FPM	Wet	Frosted	Wet	Frosted	CFM	FPM	Wet	Frosted	Wet	Frosted
LV6	1	4	20	1/3	1/3	6	3450	575	1589	1444	1785	1623	3350	558	1884	1712	2119	1926
	1	6	20	1/3	1/3	6	3225	538	1912	1738	2321	2110	3050	508	2083	1894	2534	2303
	1	8	20	1/3	1/3	6	3000	500	2185	1986	2562	2329	2800	467	2269	2063	2769	2517
LV9	1	4	24	1/2	3/4	9	5300	589	2427	2206	2726	2478	5250	583	2922	2656	3283	2984
	1	6	24	1/2	3/4	9	5000	556	2945	2677	3570	3245	4950	550	3325	3023	4032	3665
	1	8	24	1/2	3/4	9	4700	522	3395	3086	3974	3612	4550	506	3629	3299	4414	4013
LV12	1	4	24	3/4	1.0	12	6350	529	2981	2710	3359	3054	6150	513	3526	3205	3978	3616
	1	6	24	3/4	1.0	12	6000	500	3611	3283	4395	3995	5875	490	4045	3677	4926	4478
	1	8	24	3/4	1.0	12	5700	475	4191	3809	4927	4479	5600	467	4538	4125	5539	5035
LV6	2	4	20	1/3	1/3	12	6900	575	3177	2888	3571	3246	6700	558	3767	3424	4238	3852
	2	6	20	1/3	1/3	12	6450	538	3825	3477	4642	4220	6100	508	4167	3788	5067	4606
	2	8	20	1/3	1/3	12	6000	500	4370	3972	5125	4658	5600	467	4538	4125	5539	5035
LV9	2	4	24	1/2	3/4	18	10600	589	4854	4412	5451	4955	10500	583	5844	5313	6566	5968
	2	6	24	1/2	3/4	18	10000	556	5889	5353	7139	6490	9900	550	6650	6045	8065	7331
	2	8	24	1/2	3/4	18	9400	522	6790	6172	7947	7224	9100	506	7258	6597	8828	8025
LV12	2	4	24	3/4	1.0	24	12700	529	5962	5419	6718	6107	12300	513	7052	6410	7956	7232
	2	6	24	3/4	1.0	24	12000	500	7223	6565	8789	7989	11750	490	8090	7354	9853	8956
	2	8	24	3/4	1.0	24	11400	475	8381	7619	9855	8958	11200	467	9077	8251	11077	10069
LV6	3	4	20	1/3	1/3	18	10350	575	4766	4332	5356	4869	10050	558	5651	5136	6357	5778
	3	6	20	1/3	1/3	18	9675	538	5737	5215	6963	6329	9150	508	6250	5682	7601	6909
	3	8	20	1/3	1/3	18	9000	500	6555	5958	7687	6988	8400	467	6807	6188	8308	7552
LV9	3	4	24	1/2	3/4	27	15900	589	7280	6618	8177	7433	15750	583	8767	7969	9849	8953
	3	6	24	1/2	3/4	27	15000	556	8834	8030	10709	9734	14850	550	9975	9068	12097	10996
	3	8	24	1/2	3/4	27	14100	522	10185	9258	11921	10836	13650	506	10887	9896	13243	12038
LV12	3	4	24	3/4	1.0	36	19050	529	8942	8129	10078	9161	18450	513	10578	9615	11934	10848
	3	6	24	3/4	1.0	36	18000	500	10834	9848	13184	11984	17625	490	12134	11030	14779	13434
	3	8	24	3/4	1.0	36	17100	475	12572	11428	14782	13437	16800	467	13615	12376	16616	15104
LV6	4	4	20	1/3	1/3	24	13800	575	6354	5776	7142	6492	13400	558	7534	6849	8475	7704
	4	6	20	1/3	1/3	24	12900	538	7650	6954	9284	8439	12200	508	8334	7575	10135	9213
	4	8	20	1/3	1/3	24	12000	500	8740	7944	10249	9317	11200	467	9077	8251	11077	10069
LV9	4	4	24	1/2	3/4	36	21200	589	9707	8824	10902	9910	21000	583	11689	10625	13132	11937
	4	6	24	1/2	3/4	36	20000	556	11778	10706	14279	12979	19800	550	13301	12090	16130	14662
	4	8	24	1/2	3/4	36	18800	522	13580	12345	15894	14448	18200	506	14516	13195	17657	16050
LV12	4	4	24	3/4	1.0	48	25400	529	11923	10838	13437	12214	24600	513	14104	12820	15912	14464
	4	6	24	3/4	1.0	48	24000	500	14445	13131	17578	15979	23500	490	16179	14707	19705	17912
	4	8	24	3/4	1.0	48	22800	475	16762	15237	19709	17916	22400	467	18153	16501	22154	20138
LV6	5	4	20	1/3	1/3	30	17250	575	7943	7220	8927	8115	16750	558	9418	8561	10594	9630
	5	6	20	1/3	1/3	30	16125	538	9562	8692	11605	10549	15250	508	10417	9469	12669	11516
	5	8	20	1/3	1/3	30	15000	500	10925	9930	12812	11646	14000	467	11346	10313	13846	12586
LV9	5	4	24	1/2	3/4	45	26500	589	12134	11030	13628	12388	26250	583	14611	13282	16415	14921
	5	6	24	1/2	3/4	45	25000	556	14723	13383	17848	16224	24750	550	16626	15113	20162	18327
	5	8	24	1/2	3/4	45	23500	522	16976	15431	19868	18060	22750	506	18145	16494	22071	20063
LV12	5	4	24	3/4	1.0	60	31750	529	14904	13548	16796	15268	30750	513	17630	16025	19890	18080
	5	6	24	3/4	1.0	60	30000	500	18056	16413	21973	19973	29375	490	20224	18384	24632	22390
	5	8	24	3/4	1.0	60	28500	475	20953	19046	24637	22395	28000	467	22692	20627	27693	25173

Dry Btuh = Wet Btuh x 0.96
 Dry Watts = Wet Watts x 0.96

AMMONIA & R-22 RATINGS, SI UNITS

SI Capacities of Colmac LV Series Refrigeration Equipment (Generated at -1°C EADB, 0.90 Sens. Heat Ratio)

Model	Fans	Rows	Fan Dia.	kWatts 60 Hz 50 Hz		Face Area(m2)	4 FPI						6 FPI					
							Air Flow		Watts / °TD		Watts / °TD		Air Flow		Watts / °TD		Watts / °TD	
							L/s	m/s	Wet	Frosted	Wet	Frosted	L/s	m/s	Wet	Frosted	Wet	Frosted
LV6	1	4	508	0.25	0.25	0.56	1628	2.9	838	762	942	856	1581	2.8	994	903	1118	1016
	1	6	508	0.25	0.25	0.56	1522	2.7	1009	917	1224	1113	1439	2.6	1099	999	1337	1215
	1	8	508	0.25	0.25	0.56	1416	2.5	1153	1048	1352	1229	1321	2.4	1197	1088	1461	1328
LV9	1	4	610	0.37	0.56	0.84	2501	3.0	1280	1164	1438	1307	2477	3.0	1541	1401	1732	1574
	1	6	610	0.37	0.56	0.84	2360	2.8	1553	1412	1883	1712	2336	2.8	1754	1594	2127	1934
	1	8	610	0.37	0.56	0.84	2218	2.7	1791	1628	2096	1905	2147	2.6	1914	1740	2329	2117
LV12	1	4	610	0.56	0.75	1.11	2997	2.7	1572	1429	1772	1611	2902	2.6	1860	1691	2098	1907
	1	6	610	0.56	0.75	1.11	2831	2.5	1905	1732	2318	2107	2772	2.5	2134	1939	2599	2362
	1	8	610	0.56	0.75	1.11	2690	2.4	2211	2009	2599	2363	2643	2.4	2394	2176	2922	2656
LV6	2	4	508	0.25	0.25	1.11	3256	2.9	1676	1523	1884	1712	3162	2.8	1987	1806	2235	2032
	2	6	508	0.25	0.25	1.11	3044	2.7	2018	1834	2449	2226	2879	2.6	2198	1998	2673	2430
	2	8	508	0.25	0.25	1.11	2831	2.5	2305	2095	2703	2457	2643	2.4	2394	2176	2922	2656
LV9	2	4	610	0.37	0.56	1.67	5002	3.0	2560	2327	2875	2614	4955	3.0	3083	2802	3463	3148
	2	6	610	0.37	0.56	1.67	4719	2.8	3107	2824	3766	3423	4672	2.8	3508	3189	4254	3867
	2	8	610	0.37	0.56	1.67	4436	2.7	3582	3256	4192	3811	4294	2.6	3829	3480	4657	4233
LV12	2	4	610	0.56	0.75	2.23	5993	2.7	3145	2859	3544	3221	5804	2.6	3720	3381	4197	3815
	2	6	610	0.56	0.75	2.23	5663	2.5	3810	3463	4636	4214	5545	2.5	4267	3879	5197	4724
	2	8	610	0.56	0.75	2.23	5380	2.4	4421	4019	5198	4725	5285	2.4	4788	4352	5843	5311
LV6	3	4	508	0.25	0.25	1.67	4884	2.9	2514	2285	2825	2568	4743	2.8	2981	2709	3353	3048
	3	6	508	0.25	0.25	1.67	4566	2.7	3026	2751	3673	3339	4318	2.6	3297	2997	4010	3645
	3	8	508	0.25	0.25	1.67	4247	2.5	3458	3143	4055	3686	3964	2.4	3591	3264	4382	3984
LV9	3	4	610	0.37	0.56	2.51	7503	3.0	3840	3491	4313	3921	7432	3.0	4624	4204	5195	4722
	3	6	610	0.37	0.56	2.51	7079	2.8	4660	4236	5649	5135	7008	2.8	5262	4783	6381	5801
	3	8	610	0.37	0.56	2.51	6654	2.7	5373	4884	6288	5716	6441	2.6	5743	5220	6986	6350
LV12	3	4	610	0.56	0.75	3.34	8990	2.7	4717	4288	5316	4832	8707	2.6	5580	5072	6295	5722
	3	6	610	0.56	0.75	3.34	8494	2.5	5715	5195	6954	6322	8317	2.5	6401	5818	7796	7086
	3	8	610	0.56	0.75	3.34	8069	2.4	6632	6028	7798	7088	7928	2.4	7182	6528	8765	7967
LV6	4	4	508	0.25	0.25	2.23	6512	2.9	3352	3047	3767	3424	6323	2.8	3974	3613	4471	4064
	4	6	508	0.25	0.25	2.23	6088	2.7	4035	3668	4897	4452	5757	2.6	4396	3996	5346	4860
	4	8	508	0.25	0.25	2.23	5663	2.5	4610	4191	5407	4915	5285	2.4	4788	4352	5843	5311
LV9	4	4	610	0.37	0.56	3.34	10004	3.0	5121	4655	5751	5228	9910	3.0	6166	5605	6927	6297
	4	6	610	0.37	0.56	3.34	9438	2.8	6213	5648	7532	6847	9344	2.8	7016	6378	8508	7734
	4	8	610	0.37	0.56	3.34	8872	2.7	7164	6512	8384	7621	8589	2.6	7657	6960	9314	8466
LV12	4	4	610	0.56	0.75	4.46	11986	2.7	6289	5717	7088	6443	11609	2.6	7440	6763	8394	7630
	4	6	610	0.56	0.75	4.46	11326	2.5	7620	6926	9272	8429	11090	2.5	8535	7758	10395	9449
	4	8	610	0.56	0.75	4.46	10759	2.4	8842	8038	10397	9451	10571	2.4	9576	8704	11686	10623
LV6	5	4	508	0.25	0.25	2.79	8140	2.9	4190	3809	4709	4280	7904	2.8	4968	4516	5589	5080
	5	6	508	0.25	0.25	2.79	7609	2.7	5044	4585	6122	5565	7196	2.6	5495	4995	6683	6075
	5	8	508	0.25	0.25	2.79	7079	2.5	5763	5238	6758	6143	6607	2.4	5985	5440	7304	6639
LV9	5	4	610	0.37	0.56	4.18	12505	3.0	6401	5818	7189	6534	12387	3.0	7707	7006	8659	7871
	5	6	610	0.37	0.56	4.18	11798	2.8	7766	7060	9415	8558	11680	2.8	8770	7972	10635	9668
	5	8	610	0.37	0.56	4.18	11090	2.7	8955	8140	10480	9526	10736	2.6	9571	8700	11643	10583
LV12	5	4	610	0.56	0.75	5.57	14983	2.7	7862	7146	8860	8054	14511	2.6	9300	8453	10492	9537
	5	6	610	0.56	0.75	5.57	14157	2.5	9525	8658	11591	10536	13862	2.5	10668	9697	12993	11811
	5	8	610	0.56	0.75	5.57	13449	2.4	11053	10047	12996	11813	13213	2.4	11970	10881	14608	13279

Dry Btuh = Wet Btuh x 0.96
 Dry Watts = Wet Watts x 0.96

Refrigerant Connection Sizes (IPS, inches)

Ammonia			Liquid Line Sizes			Suction Sizes - Flooded and Liquid Overfeed						Suction Sizes - DX		
Capacity Tons	Lb/min, 4:1 (Note 1 & 2)	4:1 Recirc.	Flooded	DX Note 3	Saturated Suction Temp, °F (°C)						SST, °F / °C			
					30° (-1°)	20° (-7°)	0° (-18°)	-20° (-29°)	-30° (-34°)	-40° (-40°)	30° (-1°)	20° (-7°)	0° (-18°)	
1	(3.5)	1.76	1/2	1	1 1/4	1 1/4	1 1/4	1 1/4	1 1/2	1 1/2	1	1	1	
2	(7)	3.52	1/2	1	1 1/4	1 1/4	1 1/4	1 1/4	1 1/2	2	2	1	1	1
5	(17.6)	8.8	3/4	1 1/2	1 1/4	1 1/2	1 1/2	2	2 1/2	2 1/2	1	1 1/4	1 1/4	
7	(24.6)	12.32	3/4	1 1/2	1 1/2	1 1/2	2	2 1/2	2 1/2	3	1 1/4	1 1/4	1 1/2	
10	(35.2)	17.6	3/4	2	2	2	2 1/2	2 1/2	3	3	1 1/4	1 1/2	2	
15	(52.8)	26.4	3/4	2 1/2	2 1/2	2 1/2	2 1/2	3	4	4	1 1/2	2	2	
20	(70.3)	35.2	1	3	3	3	3	4	4	5	2	2	2 1/2	
25	(87.9)	44	1	3	3	3	3	4	5	5	2	2	2 1/2	
30	(105.5)	52.8	1	3	3	3	4	4	5	5	2	2 1/2	3	
40	(140.7)	70.4	1 1/4	4	3	3	4	5	5	6	2 1/2	2 1/2	3	
50	(175.9)	88	1 1/4	4	3	4	5	5	5	6	2 1/2	3	4	
60	(211)	105.6	1 1/4	4	4	4	5	5	6	6	3	3	4	
70	(246.2)	123.2	1 1/4	4	4	4	5	6	6	8	3	3	4	
80	(281.4)	140.8	1 1/2	4	4	5	5	6	6	8	3	4	4	
90	(316.5)	158.4	1 1/2	4	4	5	5	6	6	8	3	4	4	
100	(351.7)	176	1 1/2	5	5	5	5	6	8	8	4	4	4	

Refrigerant Connection Sizes (ODS, inches)

R-22		3:1 Liquid Overfeed							Direct Expansion							
Capacity Tons	Lb/min, 3:1 (Note 1 & 2)	Liquid	Suction Size, Type 'L' Cu @ SST (°F/°C)							Liquid	Suction Size, Type 'L' Cu @ SST (°F/°C)					
			30° (-1°)	20° (-7°)	0° (-18°)	-20° (-29°)	-30° (-34°)	-40° (-40°)	30° (-1°)		20° (-7°)	0° (-18°)	-20° (-29°)	-30° (-34°)	-40° (-40°)	
1	(3.5)	9.4	1/2	1 1/8	1 3/8	1 3/8	1 5/8	1 5/8	2 1/8	1/2	7/8	1 1/8	1 1/8	1 3/8	1 3/8	1 5/8
2	(7)	18.8	5/8	1 3/8	1 5/8	1 5/8	2 1/8	2 5/8	2 5/8	1/2	1 1/8	1 3/8	1 3/8	1 5/8	2 1/8	2 1/8
5	(17.6)	47.1	7/8	2 5/8	2 1/8	2 5/8	3 1/8	3 1/8	3 1/8	5/8	1 5/8	2 1/8	2 1/8	2 5/8	2 5/8	2 5/8
7	(24.6)	65.9	1 1/8	2 5/8	2 5/8	2 5/8	3 1/8	3 5/8	3 5/8	7/8	2 1/8	2 1/8	2 1/8	2 5/8	3 1/8	3 1/8
10	(35.2)	94.2	1 1/8	2 5/8	2 5/8	3 1/8	3 5/8	3 5/8	4 1/8	7/8	2 1/8	2 1/8	2 5/8	3 1/8	3 1/8	3 5/8
15	(52.8)	141.3	1 3/8	3 1/8	3 1/8	3 5/8	4 1/8	4 1/8	**5	7/8	2 5/8	2 5/8	3 1/8	3 5/8	3 5/8	4 1/8
20	(70.3)	188.4	1 3/8	3 1/8	3 1/8	3 5/8	4 1/8	**5	**6	1 1/8	2 5/8	2 5/8	3 1/8	3 5/8	4 1/8	**5
25	(87.9)	235.5	1 5/8	3 5/8	4 1/8	4 1/8	**5	**6	**6	1 1/8	3 1/8	3 1/8	3 5/8	4 1/8	**5	**5
30	(105.5)	282.6	1 5/8	3 5/8	4 1/8	4 1/8	**6	**6	**8	1 1/8	3 1/8	3 1/8	3 5/8	**5	**5	**6
40	(140.7)	376.8	2 1/8	4 1/8	4 1/8	**5	**6	**8	**8	1 1/8	3 5/8	3 5/8	4 1/8	**5	**6	**6
50	(175.9)	471	2 1/8	4 1/8	**5	**6	**8	**8	**10	1 3/8	3 5/8	4 1/8	**5	**6	**6	**8
60	(211)	565.2	2 1/8	**5	**5	**6	**8	**8	**10	1 3/8	4 1/8	4 1/8	**5	**6	**6	**8
70	(246.2)	659.4	2 1/8	**5	**6	**6	**8	**10	**10	1 3/8	4 1/8	**5	**5	**6	**8	**8
80	(281.4)	753.6	2 1/8	**5	**6	**8	**10	**10	**10	1 5/8	4 1/8	**5	**6	**8	**8	**8

- Notes:
1. Lb/min x .00756 = kg/s
 4. Suction Sizes based on .5°F / 100ft (0.9°C / 100m)
 2. At 95°F (35°C) Liquid Temp, -30°F (-34°C) Suction Temp.
 5. Tons Refrigeration x 3.517 = kW.
 3. DX Liquid size to be determined at Factory.
 6. ** Use Steel, SCH 40, IPS inches.

Defrost and Drainpan Connections

Fans	Defrost Supply Connections							Drainpan Connections	
	(Quantity) IPS, inches		(Quantity) ODS, inches			(Quantity) IPS, inches		Air & HG Defrost	Water Defrost
	Water Defrost	NH3 Hot Gas Defrost LV6	LV9	LV12	R-22 Hot Gas Defrost LV6	LV9	LV12		
1	(2) 1 1/4	(2) 3/4	(2) 3/4	(2) 3/4	(2) 1"	(2) 1"	(2) 1"	(2) 1 1/4	3
2	(4) 1 1/4	(2) 3/4	(2) 3/4	(2) 3/4	(2) 1"	(2) 1"	(2) 1"	(2) 1 1/4	3
3	(6) 1 1/4	(2) 3/4	(2) 1"	(2) 1"	(2) 1"	(2) 1"	(2) 1 3/8	(4) 1 1/4	3
4	(8) 1 1/4	(2) 3/4	(2) 1"	(2) 1 1/4	(2) 1"	(2) 1 3/8	(2) 1 3/8	(4) 1 1/4	3
5	(10) 1 1/4	(2) 1"	(2) 1 1/4	(2) 1 1/4	(2) 1"	(2) 1 3/8	(2) 1 5/8	(4) 1 1/4	3

Dimensions, Inches (mm)

Model	A	B	C	D	
LV6	-1 Fan	1 @ 36(914)	56(1422)	18 (457)	— —
	-2 Fan	2 36(914)	92(2337)	46 (1168)	— —
	-3 Fan	3 36(914)	128(3251)	46 (1168)	44 (1118)
	-4 Fan	4 36(914)	164(4166)	46 (1168)	72 (1829)
	-5 Fan	5 36(914)	200(5080)	46 (1168)	108 (2743)
LV9	-1 Fan	1 @ 36(914)	56(1422)	18 (457)	— —
	-2 Fan	2 36(914)	92(2337)	46 (1168)	— —
	-3 Fan	3 36(914)	128(3251)	46 (1168)	44 (1118)
	-4 Fan	4 36(914)	164(4166)	46 (1168)	72 (1829)
	-5 Fan	5 36(914)	200(5080)	46 (1168)	108 (2743)
LV12	-1 Fan	1 @ 36(914)	56(1422)	18 (457)	— —
	-2 Fan	2 36(914)	92(2337)	46 (1168)	— —
	-3 Fan	3 36(914)	128(3251)	46 (1168)	44 (1118)
	-4 Fan	4 36(914)	164(4166)	46 (1168)	72 (1829)
	-5 Fan	5 36(914)	200(5080)	46 (1168)	108 (2743)

Recirc Bottom & Gravity Flooded Circuiting					
Rows	W1	W2	W3	W4 (Note 1)	
LV6	4	68 5/8 (1743)	66 7/8 (1699)	24 1/2 (622)	80 7/8 (2054)
	6	68 5/8 (1743)	66 7/8 (1699)	24 1/2 (622)	80 7/8 (2054)
LV9	4	73 5/8 (1870)	71 7/8 (1826)	29 1/2 (749)	85 7/8 (2181)
	6	73 5/8 (1870)	71 7/8 (1826)	29 1/2 (749)	85 7/8 (2181)
LV12	4	73 5/8 (1870)	71 7/8 (1826)	29 1/2 (749)	85 7/8 (2181)
	6	73 5/8 (1870)	71 7/8 (1826)	29 1/2 (749)	85 7/8 (2181)

Direct Expansion & Recirc Top Circuiting					
Rows	W1	W2	W3	W4 (Note 1)	
LV6	4	53 (1346)	51 1/4 (1302)	24 1/2 (622)	65 1/4 (1657)
	6	53 (1346)	51 1/4 (1302)	24 1/2 (622)	65 1/4 (1657)
	8	68 5/8 (1743)	66 7/8 (1699)	24 1/2 (622)	80 7/8 (2054)
LV9	4	58 (1473)	56 1/4 (1429)	29 1/2 (749)	70 1/4 (1784)
	6	58 (1473)	56 1/4 (1429)	29 1/2 (749)	70 1/4 (1784)
	8	73 5/8 (1870)	71 7/8 (1826)	29 1/2 (749)	85 7/8 (2181)
LV12	4	58 (1473)	56 1/4 (1429)	29 1/2 (749)	70 1/4 (1784)
	6	58 (1473)	56 1/4 (1429)	29 1/2 (749)	70 1/4 (1784)
	8	73 5/8 (1870)	71 7/8 (1826)	29 1/2 (749)	85 7/8 (2181)

Model	H
LV6	23 1/4 (591)
LV9	29 1/4 (743)
LV12	35 1/4 (895)

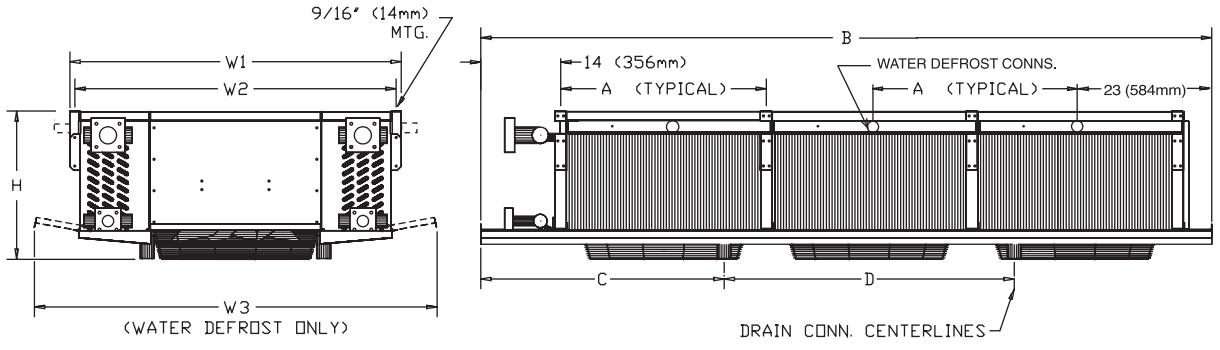
- Notes: 1. Water Defrost Only.
 2. Ammonia Header Connections are Aluminum Flange.
 Halocarbon Header Connections are Copper ODS "sweat".

Electrical Specifications

60 Hz			Three Phase 208-230/460V	
Model	HP	RPM	FLA	LRA
LV6	1/3	1140	1.7 - 1.6 / 0.8	7.5 / 3.6
LV9	1/2	1140	2.3 - 2.2 / 1.15	10.2 / 5.1
LV12	3/4	1140	3.4 - 3.2 / 1.6	10 / 4.9

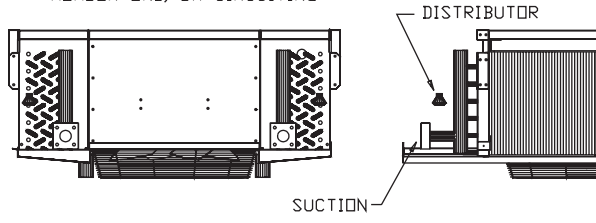
50 Hz			Three Phase 200 / 400V	
Model	HP (Watts)	RPM	FLA	LRA
LV6	0.40 (298)	950	1.8 / 0.9	7.5 / 3.6
LV9	0.75 (560)	950	3.2 / 1.6	12.7 / 6.4
LV12	1.0 (746)	950	4.2 / 2.1	13 / 6.9

- Notes: 1. Totally Enclosed, Air-Over (TEAO) Motors
 2. Motors supplied with internal thermal overload protection.



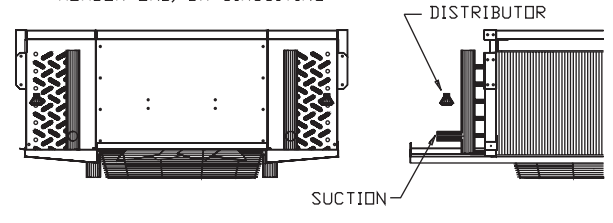
AMMONIA REFRIGERANT

HEADER END, DX CIRCUITING

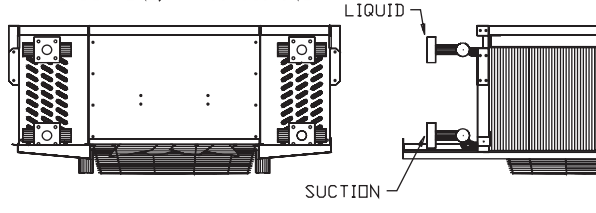


HALOCARBON REFRIGERANT

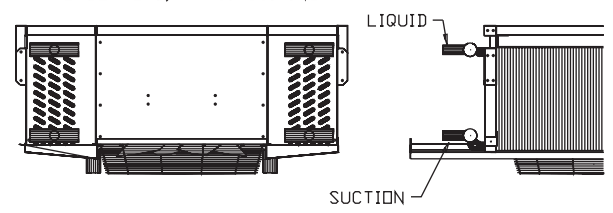
HEADER END, DX CIRCUITING



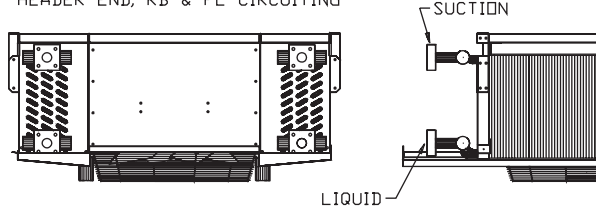
HEADER END, RT CIRCUITING



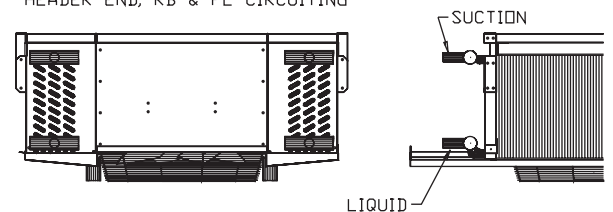
HEADER END, RT CIRCUITING



HEADER END, RB & FL CIRCUITING



HEADER END, RB & FL CIRCUITING



Specifications, English & SI Units LV6 Flooded & Recirc. Bottom Feed

Model	Face Area		Total Surface Area		Water Defrost		Dry Weight				Internal Volume			
	ft ²	m ²	ft ²	m ²	GPM@ psi	L/s@ 34kPa	R-22		NH3		R-22		NH3	
							lb	kg	lb	kg	ft ³	L	ft ³	L
314	6	0.56	358	33.3	6.0	0.38	342	155	329	149	0.52	14.61	0.45	12.86
316	6	0.56	537	49.9	8.0	0.50	384	174	359	163	0.77	21.92	0.68	19.26
324	12	1.11	716	66.6	12.0	0.76	602	273	571	259	1.03	29.23	0.91	25.71
326	12	1.11	1074	99.8	16.0	1.01	680	308	627	284	1.55	43.84	1.36	38.52
334	18	1.67	1075	99.8	18.0	1.14	862	391	813	369	1.55	43.84	1.36	38.57
336	18	1.67	1611	149.7	24.0	1.51	976	443	896	406	2.32	65.76	2.04	57.77
344	24	2.23	1433	133.1	24.0	1.51	1121	508	1054	478	2.06	58.45	1.82	51.43
346	24	2.23	2148	199.6	32.0	2.02	1271	577	1164	528	3.10	87.68	2.72	77.03
354	30	2.79	1791	166.4	30.0	1.89	1381	626	1296	588	2.58	73.07	2.27	64.29
356	30	2.79	2685	249.5	40.0	2.52	1567	711	1432	650	3.87	109.60	3.4	96.29
414	6	0.56	469	43.5	6.0	0.38	351	159	339	154	0.52	14.61	0.45	12.86
416	6	0.56	703	65.3	8.0	0.50	398	181	373	169	0.77	21.92	0.68	19.26
424	12	1.11	938	87.1	12.0	0.76	620	281	590	268	1.03	29.23	0.91	25.71
426	12	1.11	1406	130.6	16.0	1.01	708	321	656	298	1.55	43.84	1.36	38.52
434	18	1.67	1406	130.6	18.0	1.14	890	404	841	381	1.55	43.84	1.36	38.57
436	18	1.67	2109	195.9	24.0	1.51	1018	462	938	425	2.32	65.76	2.04	57.77
444	24	2.23	1875	174.2	24.0	1.51	1159	526	1092	495	2.06	58.45	1.82	51.43
446	24	2.23	2811	261.2	32.0	2.02	1328	602	1221	554	3.10	87.68	2.72	77.03
454	30	2.79	2344	217.7	30.0	1.89	1428	648	1343	609	2.58	73.07	2.27	64.29
456	30	2.79	3514	326.5	40.0	2.52	1638	743	1503	682	3.87	109.60	3.4	96.29
614	6	0.56	691	64.2	6.0	0.38	360	163	348	158	0.52	14.61	0.45	12.86
616	6	0.56	1036	96.2	8.0	0.50	412	187	387	176	0.77	21.92	0.68	19.26
624	12	1.11	1381	128.3	12.0	0.76	639	290	608	276	1.03	29.23	0.91	25.71
626	12	1.11	2071	192.4	16.0	1.01	736	334	683	310	1.55	43.84	1.36	38.52
634	18	1.67	2072	192.5	18.0	1.14	917	416	869	394	1.55	43.84	1.36	38.57
636	18	1.67	3107	288.6	24.0	1.51	1060	481	980	445	2.32	65.76	2.04	57.77
644	24	2.23	2762	256.6	24.0	1.51	1196	543	1129	512	2.06	58.45	1.82	51.43
646	24	2.23	4142	384.8	32.0	2.02	1383	627	1276	579	3.10	87.68	2.72	77.03
654	30	2.79	3453	320.8	30.0	1.89	1474	669	1389	630	2.58	73.07	2.27	64.29
656	30	2.79	5178	481.0	40.0	2.52	1707	774	1572	713	3.87	109.60	3.4	96.29

LV6 Direct Expansion & Recirc. Top

Model	Face Area		Total Surface Area		Water Defrost		Dry Weight				Internal Volume			
	ft ²	m ²	ft ²	m ²	GPM@ psi	L/s@ 34kPa	R-22		NH3		R-22		NH3	
							lb	kg	lb	kg	ft ³	L	ft ³	L
414	6	0.56	237	22.0	3.0	0.19	306	139	298	135	0.40	11.27	0.34	9.52
416	6	0.56	355	33.0	4.0	0.25	324	147	316	143	0.60	16.88	0.50	14.27
418	6	0.56	474	44.0	5.0	0.32	379	172	369	167	0.16	4.51	0.13	3.81
424	12	1.11	474	44.1	6.0	0.38	525	238	512	232	0.80	22.54	0.67	19.03
426	12	1.11	711	66.0	8.0	0.50	563	255	549	249	1.19	33.76	1.01	28.55
428	12	1.11	947	88.0	10.0	0.63	658	298	641	291	2.39	67.63	2.02	57.26
434	18	1.67	711	66.1	9.0	0.57	745	338	727	330	1.19	33.81	1.01	28.55
436	18	1.67	1066	99.0	12.0	0.76	802	364	782	355	1.79	50.64	1.51	42.82
438	18	1.67	1421	132.0	15.0	0.95	937	425	914	415	3.18	90.17	2.696	76.35
444	24	2.23	948	88.1	12.0	0.76	965	438	941	427	1.59	45.09	1.344	38.06
446	24	2.23	1422	132.1	16.0	1.01	1040	472	1014	460	2.38	67.51	2.02	57.09
448	24	2.23	1895	176.0	20.0	1.26	1216	552	1186	538	3.98	112.71	3.37	95.44
454	30	2.79	1186	110.1	15.0	0.95	1185	538	1155	524	1.99	56.36	1.68	47.58
456	30	2.79	1777	165.1	20.0	1.26	1279	580	1247	566	2.98	84.39	2.52	71.37
458	30	2.79	2369	220.0	25.0	1.58	1495	678	1458	661	3.98	112.71	3.37	95.44
614	6	0.56	339	31.5	3.0	0.19	215	98	302	137	0.40	11.27	0.34	9.52
616	6	0.56	508	47.2	4.0	0.25	229	104	322	146	0.60	16.88	0.50	14.27
618	6	0.56	677	62.9	5.0	0.32	268	122	376	171	1.59	45.09	1.35	38.18
624	12	1.11	678	62.9	6.0	0.38	388	176	521	236	0.80	22.54	0.672	19.03
626	12	1.11	1016	94.4	8.0	0.50	414	188	555	252	1.19	33.76	1.008	28.55
628	12	1.11	1354	125.8	10.0	0.63	484	220	649	294	2.39	67.63	2.02	57.26
634	18	1.67	1016	94.4	9.0	0.57	562	255	739	335	1.19	33.81	1.01	28.55
636	18	1.67	1524	141.5	12.0	0.76	599	272	788	357	1.79	50.64	1.51	42.82
638	18	1.67	2031	188.6	15.0	0.95	700	318	921	418	3.18	90.17	2.70	76.35
644	24	2.23	1355	125.9	12.0	0.76	735	333	958	435	1.59	45.09	1.34	38.06
646	24	2.23	2031	188.7	16.0	1.01	784	356	1021	463	2.38	67.51	2.02	57.09
648	24	2.23	2708	251.5	20.0	1.26	917	416	1194	542	3.98	112.71	3.37	95.44
654	30	2.79	1694	157.4	15.0	0.95	909	412	1176	533	1.99	56.36	1.68	47.58
656	30	2.79	2539	235.9	20.0	1.26	969	440	1254	569	2.98	84.39	2.52	71.37
658	30	2.79	3384	314.4	25.0	1.58	1133	514	1466	665	3.98	112.71	3.37	95.44

Specifications, English & SI Units LV9 Flooded & Recirc. Bottom Feed

Model	Face Area		Total Surface Area		Water Defrost		Dry Weight				Internal Volume			
	ft ²	m ²	ft ²	m ²	GPM@ psi	L/s@ 34kPa	R-22		NH3		R-22		NH3	
							lb	kg	lb	kg	ft ³	L	ft ³	L
314	9	0.84	537	49.9	6.0	0.38	399	181	376	171	0.73	20.62	0.68	19.26
316	9	0.84	806	74.8	8.0	0.50	495	225	427	194	1.09	30.98	1.02	28.89
324	18	1.67	1075	99.8	12.0	0.76	706	320	654	297	1.46	41.23	1.36	38.52
326	18	1.67	1611	149.7	16.0	1.01	846	384	743	337	2.19	61.96	2.04	57.77
334	27	2.51	1612	149.7	18.0	1.14	1013	459	932	423	2.18	61.85	2.04	57.77
336	27	2.51	2417	224.5	24.0	1.51	1197	543	1059	480	3.28	92.95	3.06	86.66
344	36	3.34	2149	199.7	24.0	1.51	1319	598	1210	549	2.91	82.47	2.72	77.03
346	36	3.34	3222	299.4	32.0	2.02	1548	702	1375	624	4.38	123.93	4.08	115.55
354	45	4.18	2687	249.6	30.0	1.89	1626	738	1488	675	3.64	103.08	3.4	96.29
356	45	4.18	4028	374.2	40.0	2.52	1899	861	1691	767	5.47	154.91	5.1	144.43
414	9	0.84	703	65.3	6.0	0.38	417	189	391	177	0.73	20.62	0.68	19.26
416	9	0.84	1054	97.9	8.0	0.50	523	237	453	205	1.09	30.98	1.02	28.89
424	18	1.67	1406	130.6	12.0	0.76	738	335	683	310	1.46	41.23	1.36	38.52
426	18	1.67	2109	195.9	16.0	1.01	894	406	789	358	2.19	61.96	2.04	57.77
434	27	2.51	2109	196.0	18.0	1.14	1059	480	975	442	2.18	61.85	2.04	57.77
436	27	2.51	3163	293.8	24.0	1.51	1264	573	1126	511	3.28	92.95	3.06	86.66
444	36	3.34	2813	261.3	24.0	1.51	1379	626	1267	575	2.91	82.47	2.72	77.03
446	36	3.34	4217	391.8	32.0	2.02	1635	742	1462	663	4.38	123.93	4.08	115.55
454	45	4.18	3516	326.6	30.0	1.89	1700	771	1559	707	3.64	103.08	3.4	96.29
456	45	4.18	5272	489.7	40.0	2.52	2005	909	1798	816	5.47	154.91	5.1	144.43
614	9	0.84	1036	96.2	6.0	0.38	431	196	405	184	0.73	20.62	0.68	19.26
616	9	0.84	1553	144.3	8.0	0.50	547	248	473	215	1.09	30.98	1.02	28.89
624	18	1.67	2072	192.5	12.0	0.76	759	344	711	323	1.46	41.23	1.36	38.52
626	18	1.67	3107	288.6	16.0	1.01	938	425	830	376	2.19	61.96	2.04	57.77
634	27	2.51	3108	288.7	18.0	1.14	1088	494	1017	461	2.18	61.85	2.04	57.77
636	27	2.51	4660	432.9	24.0	1.51	1328	602	1188	539	3.28	92.95	3.06	86.66
644	36	3.34	4144	385.0	24.0	1.51	1416	642	1322	600	2.91	82.47	2.72	77.03
646	36	3.34	6213	577.2	32.0	2.02	1719	780	1545	701	4.38	123.93	4.08	115.55
654	45	4.18	5180	481.2	30.0	1.89	1744	791	1628	738	3.64	103.08	3.4	96.29
656	45	4.18	7767	721.5	40.0	2.52	2109	957	1902	863	5.47	154.91	5.1	144.43

LV9 Direct Expansion & Recirc. Top

Model	Face Area		Total Surface Area		Water Defrost		Dry Weight				Internal Volume			
	ft ²	m ²	ft ²	m ²	GPM@ psi	L/s@ 34kPa	R-22		NH3		R-22		NH3	
							lb	kg	lb	kg	ft ³	L	ft ³	L
414	9	0.84	355	33.0	3.0	0.19	351	159	298	135	0.60	16.88	0.50	14.27
416	9	0.84	532	49.4	4.0	0.25	395	179	316	143	0.89	25.32	0.76	21.47
418	9	0.84	709	65.9	5.0	0.32	462	210	369	167	0.24	6.75	0.20	5.71
424	18	1.67	710	65.9	6.0	0.38	621	282	512	232	1.19	33.76	1.01	28.55
426	18	1.67	1064	98.8	8.0	0.50	675	306	549	249	1.79	50.64	1.52	42.93
428	18	1.67	1418	131.7	10.0	0.63	789	358	641	291	3.58	101.44	3.03	85.81
434	27	2.51	1065	98.9	9.0	0.57	891	404	727	330	1.79	50.64	1.51	42.82
436	27	2.51	1596	148.2	12.0	0.76	954	433	782	355	2.68	75.95	2.27	64.40
438	27	2.51	2127	197.6	15.0	0.95	1115	506	914	415	4.78	135.26	4.04	114.41
444	36	3.34	1419	131.9	12.0	0.76	1161	527	941	427	2.38	67.51	2.016	57.09
446	36	3.34	2127	197.6	16.0	1.01	1234	560	1014	460	3.58	101.27	3.03	85.87
448	36	3.34	2835	263.4	20.0	1.26	1442	654	1186	538	5.97	169.07	5.05	143.02
454	45	4.18	1774	164.8	15.0	0.95	1431	649	1155	524	2.98	84.39	2.52	71.37
456	45	4.18	2659	247.0	20.0	1.26	1513	686	1247	566	4.47	126.59	3.79	107.33
458	45	4.18	3544	329.3	25.0	1.58	1769	802	1458	661	5.97	169.07	5.05	143.02
614	9	0.84	508	47.2	3.0	0.19	357	162	302	137	0.60	16.88	0.50	14.27
616	9	0.84	762	70.8	4.0	0.25	405	184	322	146	0.89	25.32	0.76	21.47
618	9	0.84	1015	94.3	5.0	0.32	473	215	376	171	2.39	67.63	2.02	57.21
624	18	1.67	1016	94.4	6.0	0.38	629	285	521	236	1.19	33.76	1.008	28.55
626	18	1.67	1524	141.5	8.0	0.50	694	315	555	252	1.79	50.64	1.516	42.93
628	18	1.67	2031	188.6	10.0	0.63	811	368	649	294	3.58	101.44	3.03	85.81
634	27	2.51	1525	141.6	9.0	0.57	901	409	739	335	1.79	50.64	1.51	42.82
636	27	2.51	2285	212.3	12.0	0.76	983	446	788	357	2.68	75.95	2.27	64.40
638	27	2.51	3046	283.0	15.0	0.95	1149	521	921	418	4.78	135.26	4.04	114.41
644	36	3.34	2033	188.8	12.0	0.76	1173	532	958	435	2.38	67.51	2.02	57.09
646	36	3.34	3047	283.1	16.0	1.01	1272	577	1021	463	3.58	101.27	3.03	85.87
648	36	3.34	4061	377.3	20.0	1.26	1487	675	1194	542	5.97	169.07	5.05	143.02
654	45	4.18	2541	236.1	15.0	0.95	1445	655	1176	533	2.98	84.39	2.52	71.37
656	45	4.18	3809	353.8	20.0	1.26	1561	708	1254	569	4.47	126.59	3.79	107.33
658	45	4.18	5077	471.6	25.0	1.58	1825	828	1466	665	5.97	169.07	5.05	143.02

Specifications, English & SI Units LV12 Flooded & Recirc. Bottom Feed

Model	Face Area		Total Surface Area		Water Defrost		Dry Weight				Internal Volume			
	ft²	m²	ft²	m²	GPM@ psi	L/s@ 34kPa	R-22		NH3		R-22		NH3	
							lb	kg	lb	kg	ft³	L	ft³	L
314	12	1.11	716	66.6	6.0	0.38	476	216	447	203	0.97	27.53	0.91	25.71
316	12	1.11	1074	99.8	8.0	0.50	559	254	505	229	1.46	41.29	1.36	38.52
324	24	2.23	1433	133.1	12.0	0.76	832	377	767	348	1.94	55.05	1.82	51.43
326	24	2.23	2148	199.6	16.0	1.01	985	447	877	398	2.92	82.58	2.72	77.03
334	36	3.34	2149	199.7	18.0	1.14	1188	539	1086	493	2.92	82.58	2.72	77.14
336	36	3.34	3222	299.4	24.0	1.51	1411	640	1248	566	4.37	123.87	4.08	115.55
344	48	4.46	2866	266.2	24.0	1.51	1543	700	1406	638	3.89	110.11	3.63	102.86
346	48	4.46	4297	399.2	32.0	2.02	1837	833	1620	735	5.83	165.16	5.44	154.06
354	60	5.57	3582	332.8	30.0	1.89	1899	861	1725	782	4.86	137.64	4.54	128.57
356	60	5.57	5371	498.9	40.0	2.52	2263	1026	1991	903	7.29	206.45	6.8	192.58
414	12	1.11	938	87.1	6.0	0.38	495	225	466	211	0.97	27.53	0.91	25.71
416	12	1.11	1406	130.6	8.0	0.50	587	266	534	242	1.46	41.29	1.36	38.52
424	24	2.23	1875	174.2	12.0	0.76	870	395	805	365	1.94	55.05	1.82	51.43
426	24	2.23	2811	261.2	16.0	1.01	1042	473	934	424	2.92	82.58	2.72	77.03
434	36	3.34	2813	261.3	18.0	1.14	1245	565	1143	518	2.92	82.58	2.72	77.14
436	36	3.34	4217	391.8	24.0	1.51	1496	679	1334	605	4.37	123.87	4.08	115.55
444	48	4.46	3750	348.4	24.0	1.51	1619	734	1482	672	3.89	110.11	3.63	102.86
446	48	4.46	5623	522.4	32.0	2.02	1951	885	1734	787	5.83	165.16	5.44	154.06
454	60	5.57	4688	435.5	30.0	1.89	1994	904	1820	826	4.86	137.64	4.54	128.57
456	60	5.57	7029	653.0	40.0	2.52	2405	1091	2134	968	7.29	206.45	6.8	192.58
614	12	1.11	1381	128.3	6.0	0.38	514	233	485	220	0.97	27.53	0.91	25.71
616	12	1.11	2071	192.4	8.0	0.50	615	279	561	254	1.46	41.29	1.36	38.52
624	24	2.23	2762	256.6	12.0	0.76	907	411	842	382	1.94	55.05	1.82	51.43
626	24	2.23	4142	384.8	16.0	1.01	1097	498	989	449	2.92	82.58	2.72	77.03
634	36	3.34	4144	385.0	18.0	1.14	1300	590	1199	544	2.92	82.58	2.72	77.14
636	36	3.34	6213	577.2	24.0	1.51	1579	716	1416	642	4.37	123.87	4.08	115.55
644	48	4.46	5525	513.3	24.0	1.51	1693	768	1555	705	3.89	110.11	3.63	102.86
646	48	4.46	8284	769.6	32.0	2.02	2061	935	1844	836	5.83	165.16	5.44	154.06
654	60	5.57	6906	641.6	30.0	1.89	2086	946	1912	867	4.86	137.64	4.54	128.57
656	60	5.57	10355	962.0	40.0	2.52	2543	1154	2271	1030	7.29	206.45	6.8	192.58

LV12 Direct Expansion & Recirc. Top

Model	Face Area		Total Surface Area		Water Defrost		Dry Weight				Internal Volume			
	ft²	m²	ft²	m²	GPM@ psi	L/s@ 34kPa	R-22		NH3		R-22		NH3	
							lb	kg	lb	kg	ft³	L	ft³	L
414	12	1.11	473	44.0	3.0	0.19	413	187	298	135	0.80	22.54	0.67	19.09
416	12	1.11	709	65.9	4.0	0.25	472	214	316	143	1.19	33.81	1.01	28.66
418	12	1.11	945	87.8	5.0	0.32	552	250	369	167	0.32	9.02	0.27	7.64
424	24	2.23	946	87.9	6.0	0.38	722	327	512	232	1.59	45.09	1.35	38.18
426	24	2.23	1418	131.8	8.0	0.50	835	379	549	249	2.39	67.63	2.02	57.32
428	24	2.23	1890	175.6	10.0	0.63	976	443	641	291	4.77	135.09	4.03	114.19
434	36	3.34	1419	131.9	9.0	0.57	1031	468	727	330	2.39	67.63	2.02	57.26
436	36	3.34	2127	197.6	12.0	0.76	1198	543	782	355	3.58	101.44	3.04	85.98
438	36	3.34	2835	263.4	15.0	0.95	1400	635	914	415	6.36	180.12	5.376	152.25
444	48	4.46	1893	175.8	12.0	0.76	1339	607	941	427	3.18	90.17	2.696	76.35
446	48	4.46	2836	263.5	16.0	1.01	1560	708	1014	460	4.78	135.26	4.05	114.64
448	48	4.46	3780	351.2	20.0	1.26	1824	827	1186	538	7.95	225.14	6.72	190.31
454	60	5.57	2366	219.8	15.0	0.95	1648	748	1155	524	3.98	112.71	3.37	95.44
456	60	5.57	3546	329.4	20.0	1.26	1923	872	1247	566	5.97	169.07	5.06	143.30
458	60	5.57	4726	439.0	25.0	1.58	2248	1020	1458	661	7.95	225.14	6.72	190.31
614	12	1.11	678	62.9	3.0	0.19	422	191	302	137	0.80	22.54	0.67	19.09
616	12	1.11	1016	94.4	4.0	0.25	485	220	322	146	1.19	33.81	1.01	28.66
618	12	1.11	1354	125.8	5.0	0.32	567	257	376	171	3.18	90.06	2.69	76.12
624	24	2.23	1355	125.9	6.0	0.38	739	335	521	236	1.59	45.09	1.348	38.18
626	24	2.23	2031	188.7	8.0	0.50	861	391	555	252	2.39	67.63	2.024	57.32
628	24	2.23	2707	251.5	10.0	0.63	1006	456	649	294	4.77	135.09	4.03	114.19
634	36	3.34	2033	188.8	9.0	0.57	1057	479	739	335	2.39	67.63	2.02	57.26
636	36	3.34	3047	283.1	12.0	0.76	1236	561	788	357	3.58	101.44	3.04	85.98
638	36	3.34	4061	377.3	15.0	0.95	1445	655	921	418	6.36	180.12	5.38	152.25
644	48	4.46	2710	251.8	12.0	0.76	1374	623	958	435	3.18	90.17	2.70	76.35
646	48	4.46	4063	377.4	16.0	1.01	1612	731	1021	463	4.78	135.26	4.05	114.64
648	48	4.46	5415	503.0	20.0	1.26	1884	855	1194	542	7.95	225.14	6.72	190.31
654	60	5.57	3388	314.7	15.0	0.95	1691	767	1176	533	3.98	112.71	3.37	95.44
656	60	5.57	5078	471.8	20.0	1.26	1987	901	1254	569	5.97	169.07	5.06	143.30
658	60	5.57	6769	628.8	25.0	1.58	2323	1054	1466	665	7.95	225.14	6.72	190.31



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