



The Cold Standard

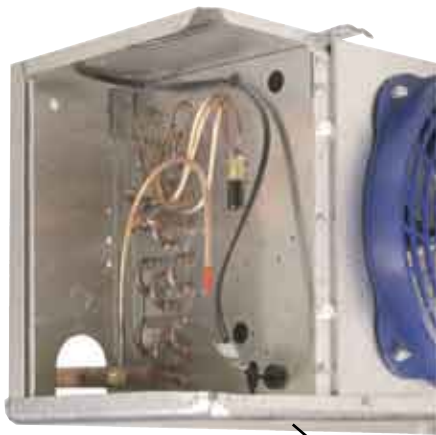
Bulletin 306.0D  
August 2004  
(Replaces 306.0C • 3/04)

## Low Profile Unit Coolers

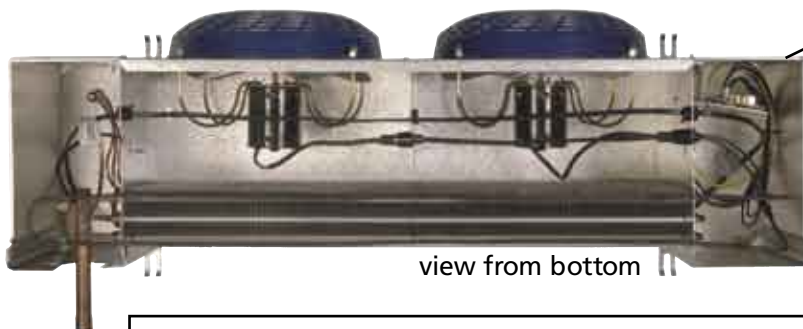
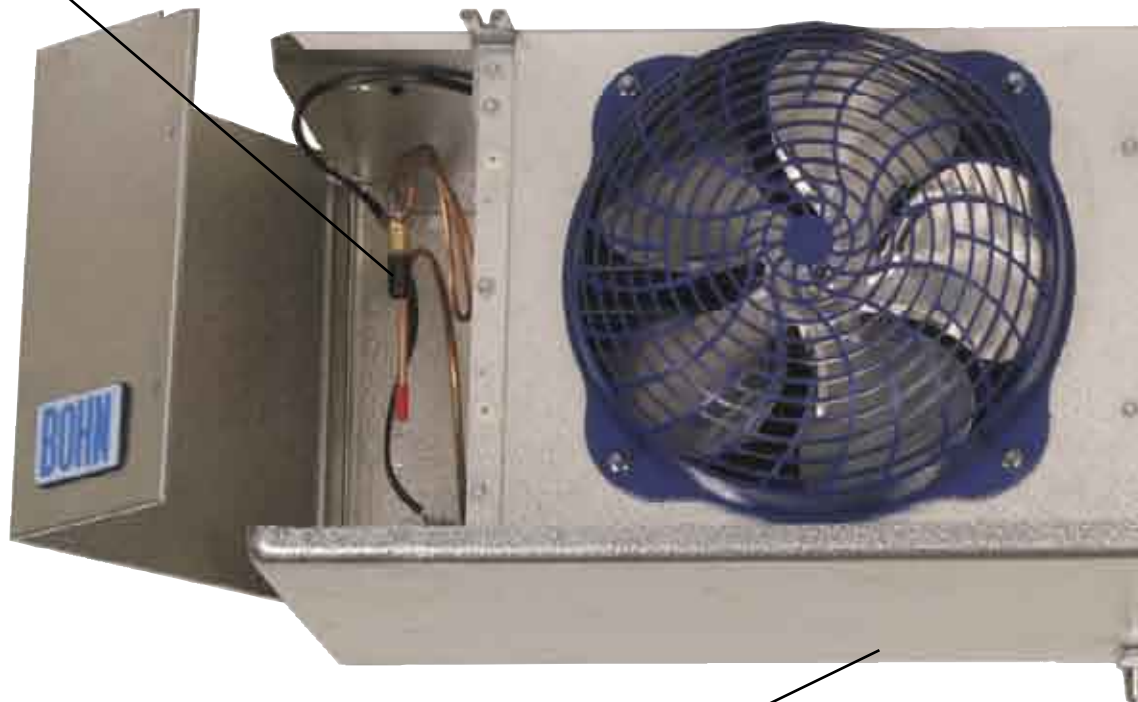


Model ADT - Air Defrost • Model LET/LLE - Electric Defrost • Model HGT - Hot Gas Defrost





Front access to refrigeration components. Hanger bars are now located on the inside of the cabinet



view from bottom

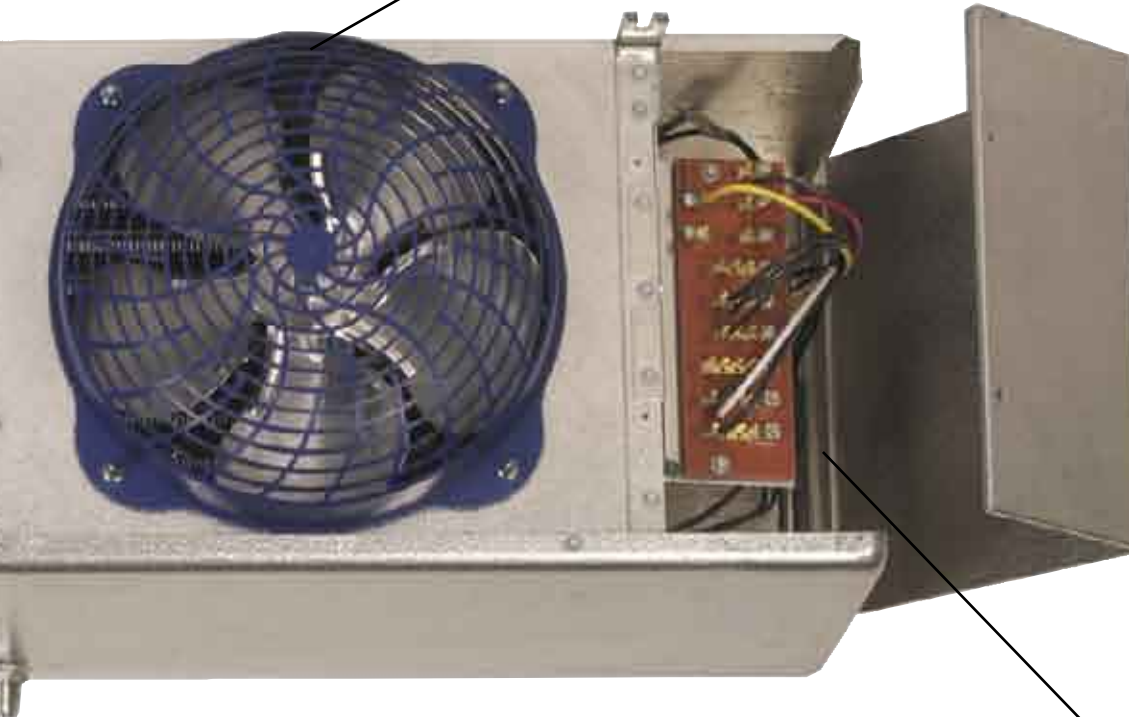
Motor harness and solenoid harness are easier to access from the bottom of the coil. The drain pan heater is located on the bottom of the coil, which allows the drain pan to be removed without the removal of the heater. The drain pan heater also extends into the end panels for more heat in the side panel cavities.



Improved plastic blue guard design (wire guard available as an option).



ALSO CLASSIFIED AS A COMPONENT IN ACCORDANCE WITH NSF 7 - 1999



Improved drain pan design. Drain pan hole is now located to the back of the drain pan and is larger in diameter 3/4" ID (3/4" MPT drain line fitting).



Front facing electric board for easy access. Optimized space in end panels.

# Features & Benefits

## Cabinet:

- Extended model and capacity offerings to better match with Bohn condensing units.
- New cabinet design features easy front access to electrical and refrigeration components.
- Smaller physical cabinet size with optimized interior space.
- Panels are isolated for quiet operation.
- Schrader valve on suction header
- Hanger bars are located inside the cabinet.
- On 4-6 fan models, lanyards are included as a drain pan holder.
- The electrical board is front-facing for easy access.
- Liquid line solenoid wire harness factory-installed for quick installation
- Pre-drilled holes on the back of the unit for room thermostat and controls.

## Heaters and Coil:

- Internally enhanced tubing and fin design for higher efficiency.
- Coil heater slots have been enlarged.
- Reduced heater wattages.
- Hot gas loop on bottom of coil for easier access.
- Fixed defrost termination for electric, adjustable defrost termination for hot gas.

## Guards and Motors:

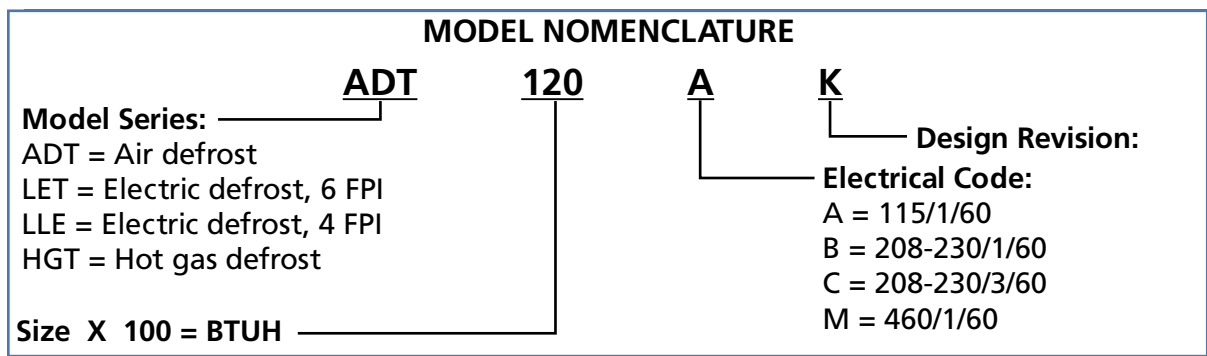
- Improved blue plastic guard design.
- Motor harness and solenoid harness are at the bottom of the unit for easy access.
- Motor harness easily plugs in.

## Drain Pan:

- Improved drain pan design.
- Drain hole is located to the back of the unit with larger diameter, 3/4" ID (3/4" MPT).
- Drain pan heater is located at the bottom of the coil for easier access.
- Extended drain pan heaters for more heat in the end compartments.
- Drain pan heater design allows for more contact with coil and drain pan.

## Options:

- Totally enclosed PSC 115/1/60, PSC 208-230/1/60 or PSC 460/1/60 motors.
- 460/1/60 PSC motors.
- Beacon II™ compatible, board mounts inside the refrigeration access panel.
- Unit configurations: mounted components, pre-charged or quick connect fittings
- Room thermostat option mounted on the back of the unit or in the front cavity of the unit (with front access to adjust thermostat)
- Glycol circuiting available on most models
- Copper fin copper tube coils
- Coil and fin coatings available



## ADT Air Defrost Models 60 Hz. with Shaded Pole Motors

ADT Model Size	Capacity BTUH / Watts 10°F TD/ 6°C TD +25°F SST/-4°C SST		Fan Data			Shaded Pole Motor Data (Total Amps/Watts)				
			CFM / m <sup>3</sup> H	No.	HP	115/ 1/60/Watts		208-230/ 1/60/Watts		
ADT 040	4,000	1,170	730	1,240	1	1/15	1.8	116	1.0	122
ADT 052	5,200	1,520	700	1,189	1	1/15	1.8	116	1.0	122
ADT 065	6,500	1,900	650	1,104	1	1/15	1.8	116	1.0	122
ADT 070	7,000	2,050	1,460	2,481	2	1/15	3.6	232	2.0	244
ADT 090	9,000	2,640	1,400	2,379	2	1/15	3.6	232	2.0	244
ADT 104	10,400	3,050	1,400	2,379	2	1/15	3.6	232	2.0	244
ADT 120	12,000	3,500	1,300	2,209	2	1/15	3.6	232	2.0	244
ADT 130	13,000	3,810	1,300	2,209	2	1/15	3.6	232	2.0	244
ADT 140	14,000	4,100	2,100	3,568	3	1/15	5.4	348	3.0	366
ADT 156	15,600	4,570	2,100	3,568	3	1/15	5.4	348	3.0	366
ADT 180	18,000	5,270	1,950	3,313	3	1/15	5.4	348	3.0	366
ADT 208	20,800	6,100	2,800	4,758	4	1/15	7.2	464	4.0	488
ADT 260	26,000	7,620	3,250	5,522	5	1/15	9.0	580	5.0	610
ADT 312	31,200	9,140	3,900	6,627	6	1/15	10.8	696	6.0	732
ADT 370	37,000	10,840	3,900	6,627	6	1/15	10.8	696	6.0	732



## ADT Air Defrost Models 60 Hz. with PSC Motors

BTUH / Watts ADT Model Size	Capacity 10°F TD/ 6°C TD +25°F SST/-4°C SST		Fan Data			PSC, PSC-TE Motor Data (Total Amps/Watts)						
			CFM / m <sup>3</sup> H	No.	HP	115/ 1/60Watts		208-230/ 1/60 Watts	460/ 1/60Watts			
ADT 040	4,000	1,170	730	1,240	1	1/15	1.0	82	0.5	91	0.4	117
ADT 052	5,200	1,520	700	1,189	1	1/15	1.0	82	0.5	91	0.4	117
ADT 065	6,500	1,900	650	1,104	1	1/15	1.0	82	0.5	91	0.4	117
ADT 070	7,000	2,050	1,460	2,481	2	1/15	2.0	164	1.0	182	0.8	234
ADT 090	9,000	2,640	1,400	2,379	2	1/15	2.0	164	1.0	182	0.8	234
ADT 104	10,400	3,050	1,400	2,379	2	1/15	2.0	164	1.0	182	0.8	234
ADT 120	12,000	3,500	1,300	2,209	2	1/15	2.0	164	1.0	182	0.8	234
ADT 130	13,000	3,810	1,300	2,209	2	1/15	2.0	164	1.0	182	0.8	234
ADT 140	14,000	4,100	2,100	3,568	3	1/15	3.0	246	1.5	273	1.2	351
ADT 156	15,600	4,570	2,100	3,568	3	1/15	3.0	246	1.5	273	1.2	351
ADT 180	18,000	5,270	1,950	3,313	3	1/15	3.0	246	1.5	273	1.2	351
ADT 208	20,800	6,100	2,800	4,758	4	1/15	4.0	328	2.0	364	1.6	468
ADT 260	26,000	7,620	3,250	5,522	5	1/15	5.0	410	2.5	455	2.0	585
ADT 312	31,200	9,140	3,900	6,627	6	1/15	6.0	492	3.0	546	2.4	702
ADT 370	37,000	10,840	3,900	6,627	6	1/15	6.0	492	3.0	546	2.4	702

# Electric Defrost Capabilities

## LET/LLE Electric Defrost Models 60 Hz. with Shaded Pole Motors

LET/LLE Model Size	Capacity BTUH / Watts 10°F / 6°C TD -20°F / -29°C SST		Fan Data		Shaded Pole Motor Data (Total Amps/Watts)			Defrost Heaters (Total Amps)				
			CFM / m <sup>3</sup> H	No.	HP	208-230/ 1/60 Watts	Watts	230/ 1/60	230/ 3/60	460/ 1/60		
	6 FPI Models											
LET 035	3,500	1,025	700	1,189	1	1/15	1.0	122	900	3.9	2.3	2.0
LET 040	4,000	1,170	700	1,189	1	1/15	1.0	122	900	3.9	2.3	2.0
LET 047	4,700	1,380	650	1,104	1	1/15	1.0	122	900	3.9	2.3	2.0
LET 065	6,500	1,900	1,400	2,379	2	1/15	2.0	244	1800	7.8	4.5	3.9
LET 075	7,500	2,200	1,300	2,209	2	1/15	2.0	244	1800	7.8	4.5	3.9
LET 090	9,000	2,640	1,300	2,209	2	1/15	2.0	244	1800	7.8	4.5	3.9
LET 120	12,000	3,520	2,100	3,568	3	1/15	3.0	366	2700	11.7	6.8	5.9
LET 140	14,000	4,100	1,950	3,313	3	1/15	3.0	366	2700	11.7	6.8	5.9
LET 160	16,000	4,690	2,600	4,418	4	1/15	4.0	488	3600	15.7	9.0	7.8
LET 180	18,000	5,280	2,600	4,418	4	1/15	4.0	488	3600	15.7	9.0	7.8
LET 200	20,000	5,860	3,250	5,522	5	1/15	5.0	610	4500	19.6	11.3	9.8
LET 240	24,000	7,030	3,900	6,627	6	1/15	6.0	732	5400	23.5	13.6	11.7
LET 280	28,000	8,200	3,900	6,627	6	1/15	6.0	732	5400	23.5	13.6	11.7
4 FPI Models												
LLE 041	4,100	1,200	690	1,172	1	1/15	1.0	122	900	3.9	2.3	2.0
LLE 068	6,800	2,000	1,380	2,345	2	1/15	2.0	244	1800	7.8	4.5	3.9
LLE 080	8,000	2,340	1,380	2,345	2	1/15	2.0	244	1800	7.8	4.5	3.9
LLE 102	10,200	2,990	2,170	3,687	3	1/15	3.0	366	2700	11.7	6.8	5.9
LLE 136	13,600	3,990	2,760	4,690	4	1/15	4.0	488	3600	15.7	9.0	7.8
LLE 170	17,000	4,980	3,450	5,862	5	1/15	5.0	610	4500	19.6	11.3	9.8
LLE 204	20,400	5,980	4,140	7,035	6	1/15	6.0	732	5400	23.5	13.6	11.7
LLE 235	23,500	6,880	4,140	7,035	6	1/15	6.0	732	5400	23.5	13.6	11.7

### Capacity Correction Factors For Electric and Hot Gas Defrost Units

Saturated Suction Temperature °F	+20	-10	-20	-30
Saturated Suction Temperature °C	-7	-23	-29	-34
Multiply Capacity By	1.15	1.04	1.00	0.90

# Electric Defrost Capabilities



## LET/LLE Electric Defrost Models 60 Hz. with PSC Motors

LET/LLE Model Size	Capacity		Fan Data		PSC, PSE-TE Motor Data (Total Amps/Watts)				Defrost Heaters (Total Amps)					
	BTUH / Watts		CFM / m <sup>3</sup> H	No.	HP	208-230/1/60		460/1/60	Watts	230/1/60	230/3/60	460/1/60		
	10°F / 6°C TD	-20°F / -29°C SST				Watts	Watts							
<b>6 FPI Models</b>														
LET 035	3,500	<b>1,025</b>	700	<b>1,189</b>	1	1/15	0.5	<b>91</b>	0.4	<b>117</b>	900	3.9	2.3	2.0
LET 040	4,000	<b>1,170</b>	700	<b>1,189</b>	1	1/15	0.5	<b>91</b>	0.4	<b>117</b>	900	3.9	2.3	2.0
LET 047	4,700	<b>1,380</b>	650	<b>1,104</b>	1	1/15	0.5	<b>91</b>	0.4	<b>117</b>	900	3.9	2.3	2.0
LET 065	6,500	<b>1,900</b>	1,400	<b>2,379</b>	2	1/15	1.0	<b>182</b>	0.8	<b>234</b>	1800	7.8	4.5	3.9
LET 075	7,500	<b>2,200</b>	1,300	<b>2,209</b>	2	1/15	1.0	<b>182</b>	0.8	<b>234</b>	1800	7.8	4.5	3.9
LET 090	9,000	<b>2,640</b>	1,300	<b>2,209</b>	2	1/15	1.0	<b>182</b>	0.8	<b>234</b>	1800	7.8	4.5	3.9
LET 120	12,000	<b>3,520</b>	2,100	<b>3,568</b>	3	1/15	1.5	<b>273</b>	1.2	<b>351</b>	2700	11.7	6.8	5.9
LET 140	14,000	<b>4,100</b>	1,950	<b>3,313</b>	3	1/15	1.5	<b>273</b>	1.2	<b>351</b>	2700	11.7	6.8	5.9
LET 160	16,000	<b>4,690</b>	2,600	<b>4,418</b>	4	1/15	2.0	<b>364</b>	1.6	<b>468</b>	3600	15.7	9.0	7.8
LET 180	18,000	<b>5,280</b>	2,600	<b>4,418</b>	4	1/15	2.0	<b>364</b>	1.6	<b>468</b>	3600	15.7	9.0	7.8
LET 200	20,000	<b>5,860</b>	3,250	<b>5,522</b>	5	1/15	2.5	<b>455</b>	2.0	<b>585</b>	4500	19.6	11.3	9.8
LET 240	24,000	<b>7,030</b>	3,900	<b>6,627</b>	6	1/15	3.0	<b>546</b>	2.4	<b>702</b>	5400	23.5	13.6	11.7
LET 280	28,000	<b>8,200</b>	3,900	<b>6,627</b>	6	1/15	3.0	<b>546</b>	2.4	<b>702</b>	5400	23.5	13.6	11.7
<b>4 FPI Models</b>														
LLE 041	4,100	<b>1,200</b>	690	<b>1,172</b>	1	1/15	0.5	<b>91</b>	0.4	<b>117</b>	900	3.9	2.3	2.0
LLE 068	6,800	<b>2,000</b>	1,380	<b>2,345</b>	2	1/15	1.0	<b>182</b>	0.8	<b>234</b>	1800	7.8	4.5	3.9
LLE 080	8,000	<b>2,340</b>	1,380	<b>2,345</b>	2	1/15	1.0	<b>182</b>	0.8	<b>234</b>	1800	7.8	4.5	3.9
LLE 102	10,200	<b>2,990</b>	2,170	<b>3,687</b>	3	1/15	1.5	<b>273</b>	1.2	<b>351</b>	2700	11.7	6.8	5.9
LLE 136	13,600	<b>3,990</b>	2,760	<b>4,690</b>	4	1/15	2.0	<b>364</b>	1.6	<b>468</b>	3600	15.7	9.0	7.8
LLE 170	17,000	<b>4,980</b>	3,450	<b>5,862</b>	5	1/15	2.5	<b>455</b>	2.0	<b>585</b>	4500	19.6	11.3	9.8
LLE 204	20,400	<b>5,980</b>	4,140	<b>7,035</b>	6	1/15	3.0	<b>546</b>	2.4	<b>702</b>	5400	23.5	13.6	11.7
LLE 235	23,000	<b>6,880</b>	4,140	<b>7,035</b>	6	1/15	3.0	<b>546</b>	2.4	<b>702</b>	5400	23.5	13.6	11.7

# Hot Gas Defrost Capabilities

## HGT Hot Gas Defrost Models 60 Hz. with Shaded Pole Motors

HGT Model Size	Capacity BTUH / Watts 10°F / 6°C TD -20°F / -29°C SST		Fan Data		Shaded Pole Motor Data (Total Amps/Watts)				Drain Pan Heater (Total Amps)*					
			CFM / m <sup>3</sup> H	No.	HP	115/ 1/60 Watts		208-230/ 1/60 Watts		Watts	115/ 1/60	230/ 1/60	460/ 1/60	
	115/ 1/60 Watts	208-230/ 1/60 Watts												
<b>6 FPI Models</b>														
HGT 035	3,500	1,025	700	1,189	1	1/15	1.8	116	1.0	122	300	2.6	1.3	0.7
HGT 040	4,000	1,170	700	1,189	1	1/15	1.8	116	1.0	122	300	2.6	1.3	0.7
HGT 047	4,700	1,380	650	1,104	1	1/15	1.8	116	1.0	122	300	2.6	1.3	0.7
HGT 065	6,500	1,900	1,400	2,379	2	1/15	3.6	232	2.0	244	600	5.2	2.6	1.3
HGT 075	7,500	2,200	1,300	2,209	2	1/15	3.6	232	2.0	244	600	5.2	2.6	1.3
HGT 090	9,000	2,640	1,300	2,209	2	1/15	3.6	232	2.0	244	600	5.2	2.6	1.3
HGT 120	12,000	3,520	2,100	3,568	3	1/15	5.4	348	3.0	366	900	7.8	3.9	2.0
HGT 140	14,000	4,100	1,950	3,313	3	1/15	5.4	348	3.0	366	900	7.8	3.9	2.0
HGT 160	16,000	4,690	2,600	4,418	4	1/15	7.2	464	4.0	488	1,200	10.4	5.2	2.6
HGT 180	18,000	5,280	2,600	4,418	4	1/15	7.2	464	4.0	488	1,200	10.4	5.2	2.6
HGT 200	20,000	5,860	3,250	5,522	5	1/15	9.0	580	5.0	610	1,500	13.0	6.5	3.3
HGT 240	24,000	7,030	3,900	6,627	6	1/15	10.8	696	6.0	732	1,800	15.7	7.8	3.9
HGT 280	28,000	8,200	3,900	6,627	6	1/15	10.8	696	6.0	732	1,800	15.7	7.8	3.9
<b>4 FPI Models</b>														
HGT 041	4,100	1,200	690	1,172	1	1/15	1.8	116	1.0	122	300	2.6	1.3	0.7
HGT 068	6,800	2,000	1,380	2,345	2	1/15	3.6	232	2.0	244	600	5.2	2.6	1.3
HGT 080	8,000	2,340	1,380	2,345	2	1/15	3.6	232	2.0	244	600	5.2	2.6	1.3
HGT 102	10,200	2,990	2,170	3,687	3	1/15	5.4	348	3.0	366	900	7.8	3.9	2.0
HGT 136	13,600	3,990	2,760	4,690	4	1/15	7.2	464	4.0	488	1,200	10.4	5.2	2.6
HGT 170	17,000	4,980	3,450	5,862	5	1/15	9.0	580	5.0	610	1,500	13.0	6.5	3.3
HGT 204	20,400	5,980	4,140	7,035	6	1/15	10.8	696	6.0	732	1,800	15.7	7.8	3.9
HGT 235	23,500	6,880	4,140	7,035	6	1/15	10.8	696	6.0	732	1,800	15.7	7.8	3.9

## HGT Hot Gas Defrost Models 60 Hz. with PSC Motors



HGT Model Size	Capacity BTUH / Watts 10°F / 6°C TD -20°F / -29°C SST		Fan Data		PSC, PSE-TE Motor Data (Total Amps/Watts)				Drain Pan Heater (Total Amps)*							
			CFM / m <sup>3</sup> H	No.	HP	115/ 1/60 Watts		208-230/ 1/60 Watts		460/ 1/60 Watts	Watts	115/ 1/60	230/ 1/60	460/ 1/60		
	115/ 1/60 Watts	208-230/ 1/60 Watts														
<b>6 FPI Models</b>																
HGT 035	3,500	1,025	700	1,189	1	1/15	1.0	82	0.5	91	0.4	117	300	2.6	1.3	0.7
HGT 040	4,000	1,170	700	1,189	1	1/15	1.0	82	0.5	91	0.4	117	300	2.6	1.3	0.7
HGT 047	4,700	1,380	650	1,104	1	1/15	1.0	82	0.5	91	0.4	117	300	2.6	1.3	0.7
HGT 065	6,500	1,900	1,400	2,379	2	1/15	2.0	164	1.0	182	0.8	234	600	5.2	2.6	1.3
HGT 075	7,500	2,200	1,300	2,209	2	1/15	2.0	164	1.0	182	0.8	234	600	5.2	2.6	1.3
HGT 090	9,000	2,640	1,300	2,209	2	1/15	2.0	164	1.0	182	0.8	234	600	5.2	2.6	1.3
HGT 120	12,000	3,520	2,100	3,568	3	1/15	3.0	246	1.5	273	1.2	351	900	7.8	3.9	2.0
HGT 140	14,000	4,100	1,950	3,313	3	1/15	3.0	246	1.5	273	1.2	351	900	7.8	3.9	2.0
HGT 160	16,000	4,690	2,600	4,418	4	1/15	4.0	328	2.0	364	1.6	468	1,200	10.4	5.2	2.6
HGT 180	18,000	5,280	2,600	4,418	4	1/15	4.0	328	2.0	364	1.6	468	1,200	10.4	5.2	2.6
HGT 200	20,000	5,860	3,250	5,522	5	1/15	5.0	410	2.5	455	2.0	585	1,500	13.0	6.5	3.3
HGT 240	24,000	7,030	3,900	6,627	6	1/15	6.0	492	3.0	546	2.4	702	1,800	15.7	7.8	3.9
HGT 280	28,000	8,200	3,900	6,627	6	1/15	6.0	492	3.0	546	2.4	702	1,800	15.7	7.8	3.9
<b>4 FPI Models</b>																
HGT 041	4,100	1,200	690	1,172	1	1/15	1.0	82	0.5	91	0.4	117	300	2.6	1.3	0.7
HGT 068	6,800	2,000	1,380	2,345	2	1/15	2.0	164	1.0	182	0.8	234	600	5.2	2.6	1.3
HGT 080	8,000	2,340	1,380	2,345	2	1/15	2.0	164	1.0	182	0.8	234	600	5.2	2.6	1.3
HGT 102	10,200	2,990	2,170	3,687	3	1/15	3.0	246	1.5	273	1.2	351	900	7.8	3.9	2.0
HGT 136	13,600	3,990	2,760	4,690	4	1/15	4.0	328	2.0	364	1.6	468	1,200	10.4	5.2	2.6
HGT 170	17,000	4,980	3,450	5,862	5	1/15	5.0	410	2.5	455	2.0	585	1,500	13.0	6.5	3.3
HGT 204	20,400	5,980	4,140	7,035	6	1/15	6.0	492	3.0	546	2.4	702	1,800	15.7	7.8	3.9
HGT 235	23,500	6,880	4,140	7,035	6	1/15	6.0	492	3.0	546	2.4	702	1,800	15.7	7.8	3.9

\* Optional with electric drain pan.



# Capacities



## ADT Air Defrost Models 50 Hz. with PSC Motors

ADT Model Size	Capacity BTUH / Watts 6°C TD -4°C SST		Fan Data			PSC, TSC-TE Motor Data (Total Amps)						
			CFM / m <sup>3</sup> H	No.	HP	110/ 1/50 Watts		220/ 1/50Watts		380/ 1/50Watts		
ADT 040	3,800	1,112	670	1,117	1	1/15	1.0	68	0.5	65	0.4	82
ADT 052	4,940	1,445	630	1,070	1	1/15	1.0	68	0.5	65	0.4	82
ADT 065	6,175	1,807	586	995	1	1/15	1.0	68	0.5	65	0.4	82
ADT 070	6,650	1,946	1,315	2,234	2	1/15	2.0	136	1.0	130	0.8	164
ADT 090	8,550	2,502	1,260	2,142	2	1/15	2.0	136	1.0	130	0.8	164
ADT 104	9,880	2,891	1,260	2,142	2	1/15	2.0	136	1.0	130	0.8	164
ADT 120	11,400	3,335	1,170	1,989	2	1/15	2.0	136	1.0	130	0.8	164
ADT 130	12,350	3,613	1,170	1,989	2	1/15	2.0	136	1.0	130	0.8	164
ADT 140	13,300	3,891	1,891	3,213	3	1/15	3.0	204	1.5	195	1.2	246
ADT 156	14,820	4,336	1,891	3,213	3	1/15	3.0	204	1.5	195	1.2	246
ADT 180	17,100	5,003	1,756	2,984	3	1/15	3.0	204	1.5	195	1.2	246
ADT 208	19,760	5,781	2,521	4,284	4	1/15	4.0	272	2.0	260	1.6	328
ADT 260	24,700	7,226	2,927	4,973	5	1/15	5.0	340	2.5	325	2.0	410
ADT 312	29,640	8,672	3,512	5,967	6	1/15	6.0	408	3.0	390	2.4	492
ADT 370	35,150	10,284	3,512	5,967	6	1/15	6.0	408	3.0	390	2.4	492



## LET/LE Electric Defrost Models 50 Hz. with PSC Motors

LET/LE Model Size	Capacity BTUH / Watts 6°C TD -29°C SST		Fan Data			PSC, PSC-TE Motor Data (Total Amps/Watts)				Defrost Heaters (Total Amps/Watts)				
			CFM / m <sup>3</sup> H	No.	HP	220/ 1/50 Watts		380 1/50 Watts		Watts	220/ 1/50	220/ 3/50	380/ 1/50	
<b>6 FPI Models</b>														
LET 035	3,325	974	630	1,070	1	1/15	0.5	65	0.4	82	823	3.7	2.2	1.6
LET 040	3,800	1,113	630	1,070	1	1/15	0.5	65	0.4	82	823	3.7	2.2	1.6
LET 047	4,465	1,308	586	995	1	1/15	0.5	65	0.4	82	823	3.7	2.2	1.6
LET 065	6,175	1,809	1,260	2,142	2	1/15	1.0	130	0.8	164	1,647	7.5	4.3	3.2
LET 075	7,125	2,087	1,170	1,989	2	1/15	1.0	130	0.8	164	1,647	7.5	4.3	3.2
LET 090	8,550	2,504	1,170	1,989	2	1/15	1.0	130	0.8	164	1,647	7.5	4.3	3.2
LET 120	11,400	3,339	1,891	3,213	3	1/15	1.5	195	1.2	246	2,470	11.2	6.5	4.9
LET 140	13,300	3,896	1,756	2,984	3	1/15	1.5	195	1.2	246	2,470	11.2	6.5	4.9
LET 160	15,200	4,452	2,341	3,978	4	1/15	2.0	260	1.6	328	3,294	15.0	8.6	6.5
LET 180	17,100	5,009	2,341	3,978	4	1/15	2.0	260	1.6	328	3,294	15.0	8.6	6.5
LET 200	19,000	5,565	2,927	4,973	5	1/15	2.5	325	2.0	410	4,117	18.7	10.8	8.1
LET 240	22,800	6,678	3,512	5,967	6	1/15	3.0	390	2.4	492	4,941	22.5	13.0	9.7
LET 280	26,600	7,791	3,512	5,967	6	1/15	3.0	390	2.4	492	4,941	22.5	13.0	9.7
<b>4 FPI Models</b>														
LLE 041	3,895	1,141	621	1,056	1	1/15	0.5	65	0.4	82	823	3.7	2.2	1.6
LLE 068	6,460	1,892	1,243	2,111	2	1/15	1.0	130	0.8	164	1,647	7.5	4.3	3.2
LLE 080	7,600	2,226	1,243	2,111	2	1/15	1.0	130	0.8	164	1,647	7.5	4.3	3.2
LLE 102	9,690	2,838	1,954	3,320	3	1/15	1.5	195	1.2	246	2,470	11.2	6.5	4.9
LLE 136	12,920	3,784	2,485	4,223	4	1/15	2.0	260	1.6	328	3,294	15.0	8.6	6.5
LLE 170	16,150	4,731	3,107	5,279	5	1/15	2.5	325	2.0	410	4,117	18.7	10.8	8.1
LLE 204	19,380	5,677	3,728	6,334	6	1/15	3.0	390	2.4	492	4,941	22.5	13.0	9.7
LLE 235	22,325	6,539	3,728	6,334	6	1/15	3.0	390	2.4	492	4,941	22.5	13.0	9.7

# Hot Gas Defrost Capabilities



## HGT Hot Gas Defrost Models 50 Hz. with PSC Motors

HGT Model Size	Capacity BTUH / Watts 6°C TD -29°C SST		Fan Data		PSC, PSC-TE Motor Data (Total Amps/Watts)			Defrost Heaters (Total Amps)*								
			CFM / m <sup>3</sup> H	No.	HP	110/ 1/50 Watts	220/ 1/50 Watts	380/ 1/50 Watts	Watts	110/ 1/50	220/ 3/50	380/ 1/50				
<b>6 FPI Models</b>																
HGT 035	3,325	<b>974</b>	630	<b>1,070</b>	1	1/15	1.0	<b>68</b>	0.5	<b>65</b>	0.4	<b>82</b>	275	2.5	1.3	0.6
HGT 040	3,800	<b>1,113</b>	630	<b>1,070</b>	1	1/15	1.0	<b>68</b>	0.5	<b>65</b>	0.4	<b>82</b>	275	2.5	1.3	0.6
HGT 047	4,465	<b>1,308</b>	586	<b>995</b>	1	1/15	1.0	<b>68</b>	0.5	<b>65</b>	0.4	<b>82</b>	275	2.5	1.3	0.6
HGT 065	6,175	<b>1,809</b>	1,260	<b>2,142</b>	2	1/15	2.0	<b>136</b>	1.0	<b>130</b>	0.8	<b>164</b>	549	5.0	2.5	1.1
HGT 075	7,125	<b>2,087</b>	1,170	<b>1,989</b>	2	1/15	2.0	<b>136</b>	1.0	<b>130</b>	0.8	<b>164</b>	549	5.0	2.5	1.1
HGT 090	8,550	<b>2,504</b>	1,170	<b>1,989</b>	2	1/15	2.0	<b>136</b>	1.0	<b>130</b>	0.8	<b>164</b>	549	5.0	2.5	1.1
HGT 120	11,400	<b>3,339</b>	1,891	<b>3,213</b>	3	1/15	3.0	<b>204</b>	1.5	<b>195</b>	1.2	<b>246</b>	823	7.5	3.7	1.6
HGT 140	13,300	<b>3,896</b>	1,756	<b>2,984</b>	3	1/15	3.0	<b>204</b>	1.5	<b>195</b>	1.2	<b>246</b>	823	7.5	3.7	1.6
HGT 160	15,200	<b>4,452</b>	2,341	<b>3,978</b>	4	1/15	4.0	<b>272</b>	2.0	<b>260</b>	1.6	<b>328</b>	1098	10.0	5.0	2.2
HGT 180	17,100	<b>5,009</b>	2,341	<b>3,978</b>	4	1/15	4.0	<b>272</b>	2.0	<b>260</b>	1.6	<b>328</b>	1098	10.0	5.0	2.2
HGT 200	19,000	<b>5,565</b>	2,927	<b>4,973</b>	5	1/15	5.0	<b>340</b>	2.5	<b>325</b>	2.0	<b>410</b>	1372	12.5	6.2	2.7
HGT 240	22,800	<b>6,678</b>	3,512	<b>5,967</b>	6	1/15	6.0	<b>408</b>	3.0	<b>390</b>	2.4	<b>492</b>	1649	15.0	7.5	3.2
HGT 280	26,600	<b>7,791</b>	3,512	<b>5,967</b>	6	1/15	6.0	<b>408</b>	3.0	<b>390</b>	2.4	<b>492</b>	1649	15.0	7.5	3.2
<b>4 FPI Models</b>																
HGT 041	3,895	<b>1,141</b>	621	<b>1,056</b>	1	1/15	1.0	<b>68</b>	0.5	<b>65</b>	0.4	<b>82</b>	275	2.5	1.3	0.6
HGT 068	6,460	<b>1,892</b>	1,243	<b>2,111</b>	2	1/15	2.0	<b>136</b>	1.0	<b>130</b>	0.8	<b>164</b>	549	5.0	2.5	1.1
HGT 080	7,600	<b>2,226</b>	1,243	<b>2,111</b>	2	1/15	2.0	<b>136</b>	1.0	<b>130</b>	0.8	<b>164</b>	549	5.0	2.5	1.1
HGT 102	9,690	<b>2,838</b>	1,954	<b>3,320</b>	3	1/15	3.0	<b>204</b>	1.5	<b>195</b>	1.2	<b>246</b>	823	7.5	3.7	1.6
HGT 136	12,920	<b>3,784</b>	2,485	<b>4,223</b>	4	1/15	4.0	<b>272</b>	2.0	<b>260</b>	1.6	<b>328</b>	1098	10.0	5.0	2.2
HGT 170	16,150	<b>4,731</b>	3,107	<b>5,279</b>	5	1/15	5.0	<b>340</b>	2.5	<b>325</b>	2.0	<b>410</b>	1372	12.5	6.2	2.7
HGT 204	19,380	<b>5,677</b>	3,728	<b>6,334</b>	6	1/15	6.0	<b>408</b>	3.0	<b>390</b>	2.4	<b>492</b>	1649	15.0	7.5	3.2
HGT 235	22,325	<b>6,539</b>	3,728	<b>6,334</b>	6	1/15	6.0	<b>408</b>	3.0	<b>390</b>	2.4	<b>492</b>	1649	15.0	7.5	3.2

\* Optional with electric drain pan.

## Air Defrost Physical Data

ADT Model Size	No. of Fans	Connections (Inches)				Approx. Net Wt. Lbs / kg	
		Coil Inlet	Suction*	External Equalizer	Drain		
ADT 040	1	1/2 OD	5/8 ID	1/4 OD	3/4 MPT	28	13
ADT 052	1	1/2 OD	5/8 ID	1/4 OD	3/4 MPT	31	15
ADT 065	1	1/2 OD	7/8 ID	1/4 OD	3/4 MPT	34	16
ADT 070	2	1/2 OD	7/8 ID	1/4 OD	3/4 MPT	45	21
ADT 090	2	1/2 OD	7/8 ID	1/4 OD	3/4 MPT	48	22
ADT 104	2	1/2 OD	7/8 ID	1/4 OD	3/4 MPT	49	23
ADT 120	2	1/2 OD	7/8 ID	1/4 OD	3/4 MPT	51	24
ADT 130	2	1/2 OD	7/8 ID	1/4 OD	3/4 MPT	53	25
ADT 140	3	1/2 OD	7/8 ID	1/4 OD	3/4 MPT	63	29
ADT 156	3	1/2 OD	7/8 ID	1/4 OD	3/4 MPT	67	31
ADT 180	3	1/2 OD	7/8 ID	1/4 OD	3/4 MPT	69	32
ADT 208	4	1/2 OD	1-1/8 ID	1/4 OD	3/4 MPT	82	38
ADT 260	5	1/2 OD	1-1/8 ID	1/4 OD	3/4 MPT	103	47
ADT 312	6	1/2 OD	1-1/8 ID	1/4 OD	3/4 MPT	124	57
ADT 370	6	1/2 OD	1-3/8 ID	1/4 OD	3/4 MPT	127	58

## Electric Defrost Physical Data

LET/LLE Model Size	No. of Fans	Connections (Inches)				Approx. Net Wt. Lbs / kg	
		Coil Inlet	Suction*	External Equalizer	Drain		
<b>6 FPI Models</b>							
LET 035	1	1/2 OD	5/8 ID	1/4 OD	3/4 MPT	24	11
LET 040	1	1/2 OD	5/8 ID	1/4 OD	3/4 MPT	26	12
LET 047	1	1/2 OD	5/8 ID	1/4 OD	3/4 MPT	29	14
LET 065	2	1/2 OD	5/8 ID	1/4 OD	3/4 MPT	43	20
LET 075	2	1/2 OD	7/8 ID	1/4 OD	3/4 MPT	45	21
LET 090	2	1/2 OD	7/8 ID	1/4 OD	3/4 MPT	48	22
LET 120	3	1/2 OD	7/8 ID	1/4 OD	3/4 MPT	60	28
LET 140	3	1/2 OD	7/8 ID	1/4 OD	3/4 MPT	62	29
LET 160	4	1/2 OD	1-1/8 ID	1/4 OD	3/4 MPT	81	37
LET 180	4	1/2 OD	1-1/8 ID	1/4 OD	3/4 MPT	84	39
LET 200	5	1/2 OD	1-1/8 ID	1/4 OD	3/4 MPT	101	46
LET 240	6	1/2 OD	1-1/8 ID	1/4 OD	3/4 MPT	121	55
LET 280	6	1/2 OD	1-1/8 ID	1/4 OD	3/4 MPT	124	57
<b>4 FPI Models</b>							
LLE 041	1	1/2 OD	5/8 ID	1/4 OD	3/4 MPT	28	13
LLE 068	2	1/2 OD	7/8 ID	1/4 OD	3/4 MPT	44	21
LLE 080	2	1/2 OD	7/8 ID	1/4 OD	3/4 MPT	47	22
LLE 102	3	1/2 OD	7/8 ID	1/4 OD	3/4 MPT	59	27
LLE 136	4	1/2 OD	1-1/8 ID	1/4 OD	3/4 MPT	80	37
LLE 170	5	1/2 OD	1-1/8 ID	1/4 OD	3/4 MPT	100	46
LLE 204	6	1/2 OD	1-1/8 ID	1/4 OD	3/4 MPT	120	55
LLE 235	6	1/2 OD	1-1/8 ID	1/4 OD	3/4 MPT	123	56

\* Suction connection is swedged to directly accept piping

# Physical Data

## Hot Gas Defrost Physical Data

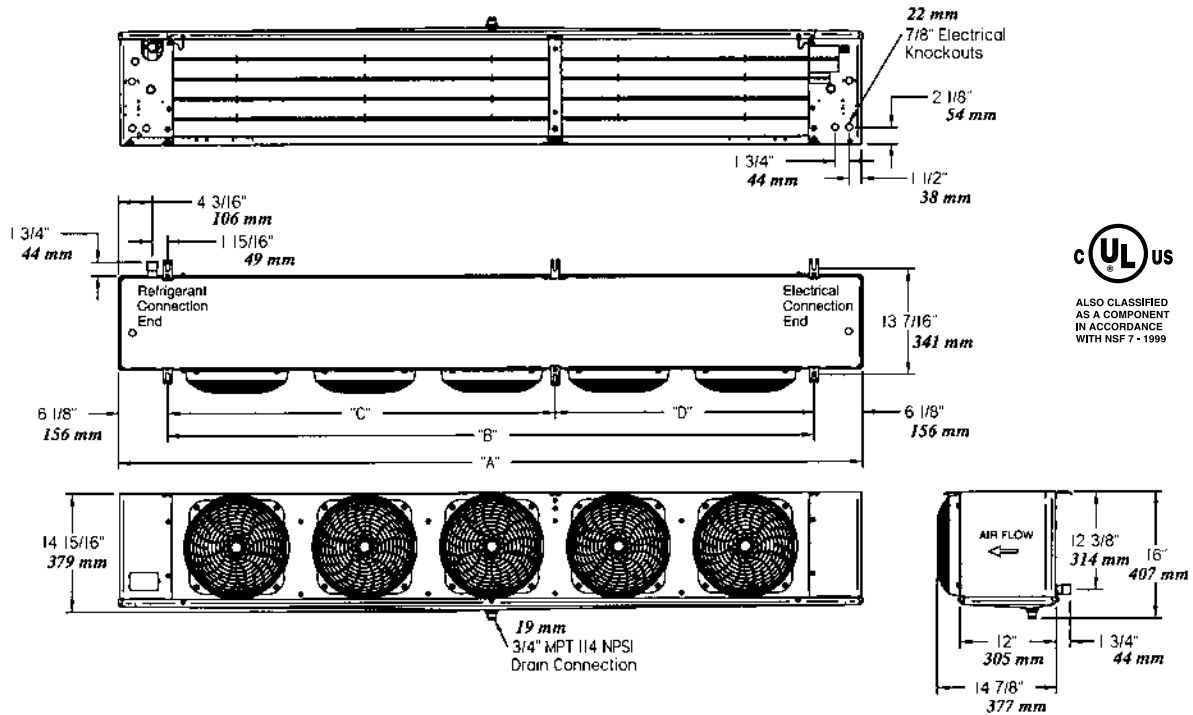
HGT Model Size	No. of Fans	Connections (Inches)						Approx. Net Wt. Lbs / kg
		Coil Inlet	Suction	External Equalizer	Drain	Side Port	Hot Gas Pan Conns.	
<b>6 FPI Models</b>								
HGT 035	1	5/8 ODF	5/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	26 <b>12</b>
HGT 040	1	5/8 ODF	5/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	28 <b>13</b>
HGT 047	1	5/8 ODF	5/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	31 <b>15</b>
HGT 065	2	5/8 ODF	5/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	45 <b>21</b>
HGT 075	2	5/8 ODF	7/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	47 <b>22</b>
HGT 090	2	7/8 ODF	7/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	50 <b>23</b>
HGT 120	3	7/8 ODF	7/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	62 <b>29</b>
HGT 140	3	7/8 ODF	7/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	64 <b>30</b>
HGT 160	4	7/8 ODF	1-1/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	83 <b>38</b>
HGT 180	4	1-1/8 ODF	1-1/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	86 <b>40</b>
HGT 200	5	1-1/8 ODF	1 1/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	103 <b>47</b>
HGT 240	6	1-1/8 ODF	1 1/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	123 <b>56</b>
HGT 280	6	1-1/8 ODF	1-1/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	126 <b>57</b>
<b>4 FPI Models</b>								
HGT 041	1	5/8 ODF	5/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	30 <b>14</b>
HGT 068	2	5/8 ODF	7/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	46 <b>21</b>
HGT 080	2	5/8 ODF	7/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	49 <b>23</b>
HGT 102	3	7/8 ODF	7/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	61 <b>28</b>
HGT 136	4	7/8 ODF	1-1/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	82 <b>38</b>
HGT 170	5	7/8 ODF	1-1/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	102 <b>47</b>
HGT 204	6	7/8 ODF	1-1/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	122 <b>56</b>
HGT 235	6	1-1/8 ODF	1-1/8 ID	1/4 OD	3/4 MPT	3/8 OD	5/8 OD	125 <b>57</b>

The standard design for the new Bohn Low Profile Evaporators will incorporate an efficient hot gas loop in the drain pan. Utilizing a hot gas loop is ideal for hot gas defrost applications where high temperature gas can be maintained to defrost both the evaporator drain pan and coil.

For applications where cooler (lower) temperature hot gas is used for defrosting, Bohn offers optional electric heater elements in the drain pan to ensure quick and efficient defrost of the drain pan allowing condensate to drain quickly, saving the hot gas for efficient evaporator coil defrost.

If the optional electric heating element drain pan is preferred, please specify when ordering, there is no additional charge.

# Dimensions



ALSO CLASSIFIED AS A COMPONENT IN ACCORDANCE WITH NSF 7 - 1999

## Dimensional Data For All Models

Air Defrost Models	Electric and Hot Gas Defrost Models		No. of Fans	Dimensions (Inches / mm)			
	6 FPI	4 FPI		A	B	C	D
040	035	—	1	29.50 749.3	17.25 438.1	—	—
052	040	—	1	29.50 749.3	17.25 438.1	—	—
065	047	041	1	29.50 749.3	17.25 438.1	—	—
070	—	—	2	45.50 1,155.7	33.25 845.0	—	—
090	065	—	2	45.50 1,155.7	33.25 845.0	—	—
104	—	—	2	45.50 1,155.7	33.25 845.0	—	—
120	075	068	2	45.50 1,155.7	33.25 845.0	—	—
130	090	080	2	45.50 1,155.7	33.25 845.0	—	—
140	120	102	3	61.50 1,562.1	49.25 1,251.0	—	—
156	—	—	3	61.50 1,562.1	49.25 1,251.0	—	—
180	140	—	3	61.50 1,562.1	49.25 1,251.0	—	—
208	160	—	4	77.50 1,968.5	65.25 1,657.0	—	—
—	180	136	4	77.50 1,968.5	65.25 1,657.0	—	—
260	200	170	5	93.50 2,374.9	81.25 2,064.0	48.63 1,235.1	32.63 828.7
312	240	204	6	109.50 2,781.3	97.25 2,470.0	48.63 1,235.1	48.63 1,235.1
370	280	235	6	109.50 2,781.3	97.25 2,470.0	48.63 1,235.1	48.63 1,235.1

NOTE: Hanger brackets will accept 3/8" / 9.5 mm hanger rods.

# Standard Nozzle Selection

## Air Defrost

Fan #	Model	Distributor Tube (inches)		# Circuits	R404A	R-22
		OD	Length			
1	040	3/16	15	1	-	-
1	052	3/16	15	1	-	-
1	065	3/16	15	2	L-1/2	L-1/3
2	070	3/16	15	2	L-1/2	L-1/3
2	090	3/16	15	3	L-3/4	L-1/2
2	104	3/16	15	3	L-3/4	L-1/2
2	120	3/16	15	3	L-1	L-3/4
2	130	3/16	15	4	L-1	L-3/4
3	140	3/16	15	4	L-1	L-3/4
3	156	3/16	15	5	L-1 1/2	L-1
3	180	3/16	15	5	L-1 1/2	L-1
4	208	3/16	15	5	L-1 1/2	L-1
5	260	3/16	15	9	L-2	L-1 1/2
6	312	3/16	15	9	L-2 1/2	L-2
6	370	3/16	15	10	L-3	L-2

## Electric Defrost

#Fans	Model	Distributor Tube (inches)		#Circuits	Low Temp. -30°F to 0°F SST		Medium Temp. +10°F to +25°F SST	
		OD	Length		R404A	R-22	R404A	R-22
<b>6 FPI</b>								
1	035	3/16	15	2	L-1/2	L-1/4	L-1/3	L-1/4
1	040	3/16	15	2	L-1/2	L-1/4	L-1/3	L-1/4
1	047	3/16	15	2	L-1/2	L-1/3	L-1/3	L-1/3
2	065	3/16	15	4	L-3/4	L-1/2	L-1/2	L-1/2
2	075	3/16	15	4	L-1	L-3/4	L-3/4	L-1/2
2	090	3/16	15	5	L-1	L-3/4	L-3/4	L-1/2
3	120	3/16	15	5	L-1 1/2	L-1	L-1	L-3/4
3	140	3/16	15	6	L-1 1/2	L-1	L-1 1/2	L-1
4	160	3/16	15	8	L-2	L-1	L-1 1/2	L-1
4	180	3/16	15	10	L-2	L-1 1/2	L-1 1/2	L-1
5	200	3/16	15	9	L-2 1/2	L-1 1/2	L-2	L-1 1/2
6	240	3/16	15	9	L-2 1/2	L-2	L-2	L-1 1/2
6	280	3/16	15	10	L-3	L-2	L-2 1/2	L-2
<b>4 FPI</b>								
1	041	3/16	15	2	L-1/2	L-1/3	L-1/3	L-1/4
2	068	3/16	15	4	L-3/4	L-1/2	L-1/2	L-1/3
2	080	3/16	15	4	L-1	L-3/4	L-3/4	L-1/2
3	102	3/16	15	5	L-1	L-3/4	L-3/4	L-3/4
4	136	3/16	15	8	L-1 1/2	L-1	L-1	L-3/4
5	170	3/16	15	8	L-2	L-1 1/2	L-1 1/2	L-1
6	204	3/16	15	8	L-2 1/2	L-1 1/2	L-2	L-1 1/2
6	235	3/16	15	10	L-2 1/2	L-2	L-2	L-1 1/2

## Hot Gas Defrost

#Fans	Model	Distributor Tube (inches)		#Circuits	Low Temp. -30°F to 0°F SST		Medium Temp. +10°F to +25°F SST	
		OD	Length		R404A	R-22	R404A	R-22
<b>6 FPI</b>								
1	035	1/4	15	2	J-1/2	J-1/4	J-1/3	J-1/4
1	040	1/4	15	2	J-1/2	J-1/3	J-1/3	J-1/4
1	047	1/4	15	2	J-3/4	J-1/3	J-1/2	J-1/4
2	065	1/4	15	4	J-1	J-1/2	J-3/4	J-1/3
2	075	1/4	15	4	J-1	J-3/4	J-3/4	J-1/2
2	090	1/4	15	5	G-1 1/2	G-3/4	G-3/4	G-1/2
3	120	1/4	15	5	G-1 1/2	G-1	G-1	G-3/4
3	140	1/4	15	6	G-2	G-1	G-1 1/2	G-1
4	160	1/4	15	8	G-2	G-1 1/2	G-1 1/2	G-1
4	180	1/4	15	10	E-2 1/2	E-1 1/2	E-1 1/2	E-1
5	200	1/4	15	9	E-2 1/2	E-2	E-2	E-1 1/2
6	240	1/4	15	9	E-3	E-2	E-2	E-1 1/2
6	280	1/4	15	10	E-4	E-2 1/2	E-2 1/2	E-2
<b>4 FPI</b>								
1	041	1/4	15	2	J-1/2	J-1/3	J-1/3	J-1/4
2	068	1/4	15	4	J-1	J-1/2	J-3/4	J-1/2
2	080	1/4	15	4	J-1	J-3/4	J-3/4	J-1/2
3	102	1/4	15	5	G-1 1/2	G-3/4	G-1	G-3/4
4	136	1/4	15	8	G-2	G-1	G-1 1/2	G-1
5	170	1/4	15	8	G-2	G-1 1/2	G-1 1/2	G-1
6	204	1/4	15	8	G-2 1/2	G-2	G-2	G-1 1/2
6	235	1/4	15	10	E-3	E-2	E-2	E-1 1/2

# Reverse Hot Gas Reverse Cycle Kits

Ship Loose				Factory Installed		
TXV Bypass Assembly Kits				TXV Bypass Assembly Kits		
HGT 6 FPI	SQE/SBF	EG	HFESC			
035 - 075	50169210	50169213	50169216	52733701	52733704	52733707
090 - 160	50169211	50169214	50169217	52733702	52733705	52733708
180 - 280	50169212	50169215	50169218	52733703	52733706	52733709
4 FPI						
041 - 080	50169210	50169213	50169216	52733701	52733704	52733707
102 - 204	50169211	50169214	50169217	52733702	52733705	52733708
235	50169212	50169215	50169218	52733703	52733706	52733709

Ship Loose			Factory Installed	
Drain Pan Loop Check Valve Kit		Suction Line Check Valve Kit	Drain Pan Loop Check Valve Kit	Suction Line Check Valve Kit
HGT 6 FPI				
035 - 065	50169304	50169604	52733601	52733801
075 - 140	50169305	50169605	52733602	52733802
160 - 280	50169306	50169606	52733603	52733803
HGT 4 FPI				
041	50169304	50169604	52733601	52733801
068 - 102	50169305	50169605	52733602	52733802
136 - 235	50169306	50169606	52733603	52733803

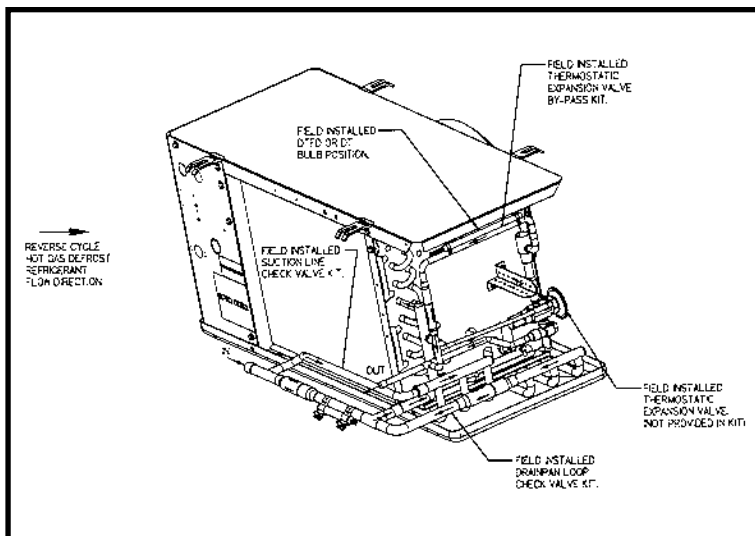
Recommendation is that both check valve kits are ordered:  
(For hot gas models with the hot gas loop drain pan ONLY)

Note: The drain pan check valve kit can be ordered as an independent item. But the suction line check valve kit must be ordered with the drain pan check valve kit in order to complete the piping.

Note: When using the HOT GAS units on 0°F applications and below, an insulated drain pan is required.

The Hot Gas unit coolers can be used in reverse cycle hot gas defrost systems using multiple evaporators connected to one condensing unit. Generally, not more than one-third of the system defrosts at one time. During the reverse cycle defrost, the reversing valve; located in the compressor discharge line, diverts hot gas through the suction line to the evaporator. See piping view in Figure 1. The suction line check valve directs the hot gas through the drain pan loop which prevents condensate in the pan from freezing. The hot gas exits the loop at the pan loop outlet header and enters the evaporator through the check valve assembly. As the hot gas defrosts the coil, heat is removed from the hot gas and eventually it condenses into a liquid and exits the coil at the distributor sideport. The liquid then flows through the check valve of the thermostatic expansion valve bypass assembly, around the thermostatic expansion valve, and into the system liquid line. The liquid refrigerant then feeds other evaporators on the cooling cycle, evaporates, and returns to the compressor through their suction lines.

Figure 1 Reverse Cycle Piping



## Hot Gas Reverse Cycle Kits (cont.)

In the refrigeration cycle, the thermostatic expansion valve bypass assembly check valve only allows refrigerant flow through the thermostatic expansion valve and into the evaporator coil. As the refrigerant vapor exits the coil at the suction line, the check valve of the drain pan loop check valve assembly prevents the refrigerant vapor flow through the drain pan loop.

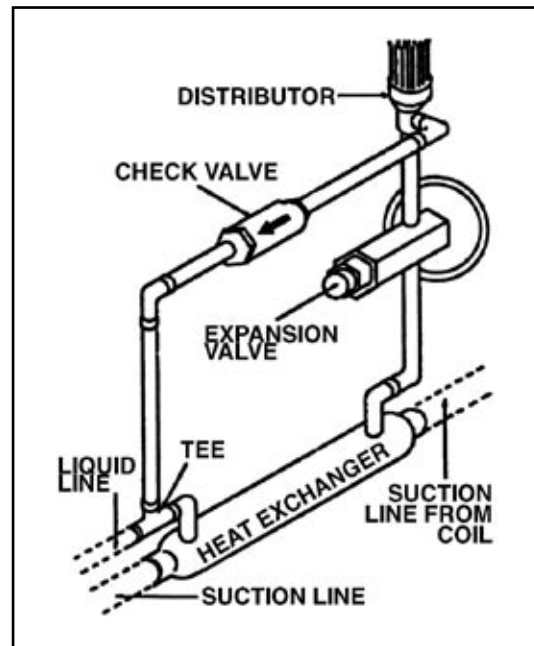
Factory engineered assemblies (kits) are available for both ship loose and factory installed at an additional cost to complete the reverse cycle piping and components. The suction line check valve assembly includes the suction line check valve and the piping for both the suction line and the connection to the drain pan loop inlet header. In order for the suction line check valve assembly to be mounted, the drain pan loop check valve assembly must be used. The drain pan loop check valve assembly includes the check valve, suction line tee and a bent pipe. The thermostatic expansion valve bypass assembly option includes the check valve, tee and necessary piping. In order for the thermostatic expansion valve bypass assembly option to be complete,

a thermostatic expansion valve must be selected by the sales engineer. The thermostatic expansion valve bypass assembly option is dependent on the body style of the thermostatic expansion valves which includes the Sporlan SQE, SBF, EG and the Alco HFESC body styles. The factory installed thermostatic expansion valve bypass assembly option must have the thermostatic expansion valve selection included on the order for the Hot Gas unit cooler.

To increase the efficiency, higher performance and greater system protection, a heat exchanger may be beneficial to the system. In order to use a heat exchanger, the thermostatic expansion valve bypass assembly option must be modified. See the piping view in Figure 2. The modification includes rerouting the pipe from the thermostatic expansion valve bypass check valve to the inlet connection of the liquid line to the heat exchanger. A pipe needs to be routed from the liquid line outlet connection of the heat exchanger to the inlet connection of the thermostatic expansion valve.

The electrical control option includes an adjustable defrost termination and fan delay control (DTFD) which is standard. For an additional cost, an optional (2) control electrical system is available with one adjustable control for defrost termination (DT) and one fixed control for the fan delay (FD). For both the DTFD and DT adjustable controls, the remote bulb position is with the bulb strapped to the piping of the thermostatic expansion valve bypass assembly option between the distributor sideport and the check valve. When the thermostatic expansion valve bypass assembly is ship loose, the installer will need to position the remote bulb. When the thermostatic expansion valve bypass assembly is factory installed, the remote bulb should already be properly installed.

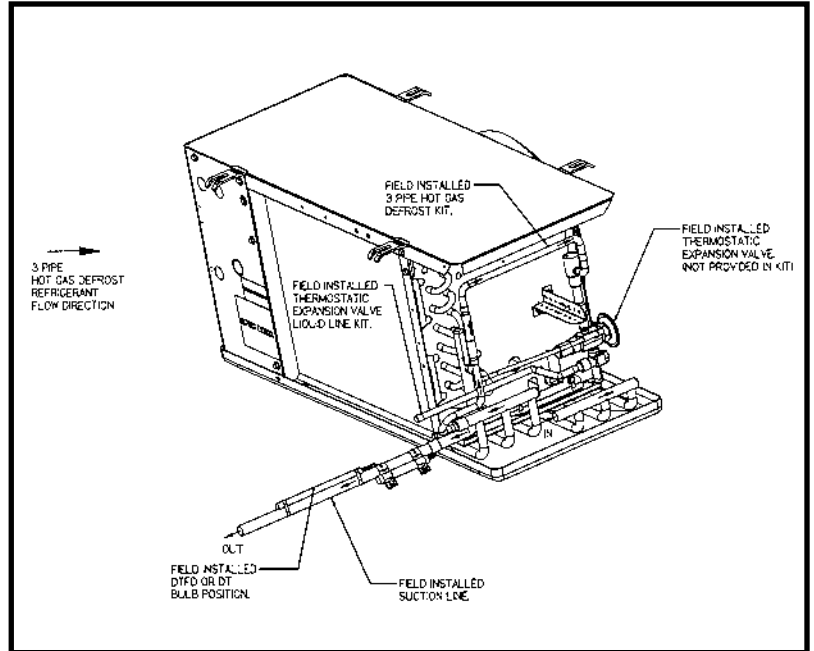
**Figure 2. Typical Liquid Line Bypass Kit**  
(Shown assembled and modified for heat exchanger)





# Hot Gas 3-Pipe Hot Gas Defrost

The Hot Gas defrost unit cooler conforms to the standard 3-pipe hot gas system using a check valve assembly, an electrical control to terminate the defrost, and a hot gas solenoid valve. The check valve assembly transports the hot gas between the drain pan loop and the sideport distributor of the coil. The check valve assembly kit is available for ship loose or factory installed for an additional cost. The electrical control option includes an adjustable defrost termination and fan delay control (DTFD) which is standard. An optional (2) control electrical system is available with one adjustable control for defrost termination (DT) and one fixed control for the fan delay (FD) for an additional cost. For both the DTFD and DT adjustable controls, the remote bulb position is with the bulb strapped to the suction line to insure a complete defrost. The remote bulb is positioned by the installer. The hot gas solenoid valve must be ordered separately and will be ship loose. The thermostatic expansion valve could be ordered separately and ship loose or the thermostatic expansion valve could be factory installed with a liquid line for an additional cost. The liquid line is designed for the body styles of the Sporlan SQE, SBF, EG and the Alco HFESC thermostatic expansion valves. The thermostatic expansion valve needs to be selected by the sales engineer. In a typical 3-pipe, multiple evaporator system, the compressor discharge defrosts the evaporator. The liquid/vapor mixture of refrigerant after defrost, however, returns to the common suction line of the system. In order to provide sufficient re-evaporation of the liquid vapor mixture and sufficient heat for defrost, no more than one-third of the system should be defrosted at one time. Some means of control in the 3-pipe hot gas system should be supplied to regulate the large amount of liquid returning to the compressor, Refrigerant slugging can otherwise damage the compressor.



Ship Loose				Factory Installed		
TXV Liquid Line				TXV Liquid Line		
HGT 6 FPI	SQE/SBF	EG	HFESC	SQE/SBF	EG	HFESC
035 - 075	50169410	50169413	50169416	52733901	52733904	52733907
090 - 160	50169411	50169414	50169417	52733902	52733905	52733908
180 - 280	50169412	50169415	50169418	52733903	52733906	52733909
HGT 4 FPI						
041 - 080	50169410	50169413	50169416	52733901	52733904	52733907
102 - 204	50169411	50169414	50169417	52733902	52733905	52733908
235	50169412	50169415	50169418	52733903	52733906	52733909

For Hot Gas models with the Hot Gas loop drain pan only

When using the HOT GAS units on 0°F applications and below, an insulated drain pan is required.

	Ship Loose	Factory Installed
	Drain Pan Loop Check Valve Kit	Drain Pan Loop Check Valve Kit
HGT 6 FPI		
035 - 075	50169504	52739601
090 - 160	50169505	52739602
180 - 280	50169506	52739603
HGT 4 FPI		
041 - 080	50169504	52739601
102 - 204	50169505	52739602
235	50169506	52739603

# Replacement Parts

## Motor / Fan Blade / Fan Guards

Part #	Description	No. Fans
25300101	Motor 115/1/60 Shaded Pole	1-6
25300201	Motor 208-230/1/60 Shaded Pole	1-6
25309501	Motor 115/1/60 Totally Enclosed PSC (110/1/50)	1-6
25309601	Motor 208-230/1/60 Totally Enclosed PSC	1-6
25309701	Motor 460/1/60 Totally Enclosed PSC	1-6
25309801	Motor 208-230/1/60 PSC (220/1/50)	1-6
25308701	Motor 460/1/60 PSC (380/1/50)	1-6
5140C	Fan Blade	1-6
37000701	Fan Guard - Molded	1-6
37000601	Fan Guard - Wire	1-6
23104901	Motor mount used with 115 & 208-230v motors	1-6
23103301	Motor mount used with 460v motors	1-6

## Cabinet Components

Part #	Description	No. of Fans
40480101	Drain Pan Air & Hot Gas Defrost	1
40480201	Drain Pan Air & Hot Gas Defrost	2
40480301	Drain Pan Air & Hot Gas Defrost	3
40480401	Drain Pan Air & Hot Gas Defrost	4
40480501	Drain Pan Air & Hot Gas Defrost	5
40480601	Drain Pan Air & Hot Gas Defrost	6
40480103	Drain Pan Electric Defrost	1
40480205	Drain Pan Electric Defrost	2
40480305	Drain Pan Electric Defrost	3
40480403	Drain Pan Electric Defrost	4
40480503	Drain Pan Electric Defrost	5
40480603	Drain Pan Electric Defrost	6
40880801	Access Panel - Elect	1-6
40880701	Access Panel - Refrig	1-6
40880901	Back Panel - Refrig	1-6
40881001	Back Panel - Elect	1-6
40881201	End Panel - Hot Gas Refrig	1-6

## Hot Gas Defrost – Electric Drain Pan Option Drain Pan Heater (1 per unit)

Part #	Description	Voltage	No. Fans
24752101	300 W	115/1/60	1
24752102	600 W	115/1/60	2
24752103	900 W	115/1/60	3
24752104	1200 W	115/1/60	4
24752105	1500 W	115/1/60	5
24752106	1800 W	115/1/60	6
24752201	300 W	208-230/1/60	1
24752202	600 W	208-230/1/60	2
24752203	900 W	208-230/1/60	3
24752204	1200 W	208-230/1/60	4
24752205	1500 W	208-230/1/60	5
24752206	1800 W	208-230/1/60	6
24752301	300 W	460/1/60	1
24752302	600 W	460/1/60	2
24752303	900 W	460/1/60	3
24752304	1200 W	460/1/60	4
24752305	1500 W	460/1/60	5
24752306	1800 W	460/1/60	6

## Electric Defrost

Part #	Desc.	Voltage	No. Fans
Coil Heater			
24752001	300 W	208-230/1/60	1
24752002	600 W	208-230/1/60	2
24752003	900 W	208-230/1/60	3
24752004	1200 W	208-230/1/60	4
24752005	1500 W	208-230/1/60	5
24752006	1800 W	208-230/1/60	6
Bottom Coil Heater			
24752401	150W	208-230/1/60	1
24752402	300W	208-230/1/60	2
24752403	450W	208-230/1/60	3
24752404	600W	208-230/1/60	4
24752405	750W	208-230/1/60	5
24752406	900W	208-230/1/60	6
Drain Pan Heater			
24752501	150W	208-230/1/60	1
24752502	300W	208-230/1/60	2
24752503	450W	208-230/1/60	3
24752504	600W	208-230/1/60	4
24752505	750W	208-230/1/60	5
24752506	900W	208-230/1/60	6

## Electrical Components

Part #	Description	No. Fans
22512601	Terminal Strip	1 - 6
5709L	Defrost Termination / Fan Delay - Klixon Type	1 - 6
4267-W	Defrost Termination / Fan Delay - Adjustable Type	1 - 6
5708L	Heater Safety - Klixon Type	1 - 6

## Drain Fittings

Part #	Description	No. Fans
26925101	Drain Fitting Kit	1 - 6

No. Fans	Air Defrost	Electric & Hot Gas	
	6 FPI	6 FPI	4FPI
1	040-065	035-047	041
2	070-130	065-090	068-080
3	140-180	120-140	102
4	208	160-180	136
5	260	200	170
6	312-370	240-280	204-235



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