



## Low Profile Unit Coolers

Technical Guide

Models LSC | LSF/LFF | LSH



**CLIMATE**  
  
**CONTROL**

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## Choose the most energy-efficient motor available for evaporators.



The EC motor is an energy sufficient option on Climate Control Low Profile evaporators. Available on all new equipment or as an easy-to-install, drop-in replacement aftermarket part from InterLink™ Commercial Refrigeration Parts. Because they are a drop-in replacement for existing shaded pole and PSC motors, installation is quick and easy. It's a high impact, quick payback solution for reducing costs and achieving green initiatives without replacing the entire system.

EC motors by InterLink are up to 75% energy efficient - that's a 51-59% increase over shaded pole motors and a 30-35% increase over permanent-split capacitor (PSC) motors. With all of this added efficiency, you can count on more energy savings and lower operational costs while taking a step in the right direction toward conserving our planet's resources.

## Nomenclature

LSC	120	A	G	K
Model Series	Capacity	Electrical Code	Control Option	Design Revision
LSC = Air defrost	# x 100 = BTUH (R-404A)	A = 115/1/60 (PSC)	G = IntelliGen™	
LSF = Electric defrost, 6 FPI		B = 208-230/1/60 (PSC)		
LFF = Electric defrost, 4 FPI		C = 208-230/3/60 (PSC)		
LSH = Hot gas defrost		M = 460/1/60		
		AE = 115/1/60 (EC)		
		BE = 208-230/1/60 (EC)		
		CE = 208-230/3/60 (EC)		

## Features & Benefits

### Cabinet

- Cabinet design features front access panels on each side for easy access to electrical and refrigeration components.
- Sweat connections to reduce potential for leaks
- Internal panels are isolated for quiet operation.
- Liquid line solenoid wire harness is factory-installed for quick installation.
- Pre-drilled holes on the back of the unit for room thermostat

### Coil

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

### Controls Options

- intelliGen™ Refrigeration Controller (iRC) units come with factory mounted, tested and calibrated with an electronic expansion valve, pressure transducer, temperature sensors, control board and User Interface. Standard features include Door Sensor, Product Load Input and Alarm Output.
- Optional Field installable intelliGen Webserver Card (iWC) enables local and remote monitoring on any Phone, Tablet or PC.
- Optional Field installable intelliGen Integration Card (iIC) enables connectivity to BACnet and Modbus.
- Quick Response Controller units come factory mounted with an electronic expansion valve, pressure transducer, temperature sensors and control board.
- Beacon II™ units come factory mounted with an electronic expansion valve, pressure transducer, temperature sensors and control board.

### Motors

- Motors plug into wiring harness for easier servicing.
- EC motors available factory-installed or as a drop-in replacement through InterLink™ Commercial Refrigeration Parts in 115/1/60, 208-230/1/60 and 208-230/3/60 unit voltages.
- PSC and PSC (Totally Enclosed) motors for 115/1/60, 208-230/1/60 and 460/1/60 unit voltages
- PSC motors or EC motors are suitable for 50 Hz operation.

### Drain Pan

- Large diameter drain hole (3/4" ID) is located towards the back of the unit.
- Extended drain pan heaters for more uniform defrost throughout the drain pan and additional heat in end compartments
- On 4-6 fan models, drain pan has a lanyard for easy and safe access.

### Other Options

- Units available with factory installed mounted components: Expansion Valve, Mechanical Room Thermostat, Solenoid Valve with Dual Voltage Coil
  - Units available with mounted TXV and mounted TXV with solenoid valve
  - Pre-assembled units come with mounted TXV, liquid line solenoid valve and room thermostat.
  - Available in a master liquid line configuration
  - Pre-charged units come with mounted TXV, liquid line solenoid valve, room thermostat and quick connect fittings.
  - Various room thermostat variations including rear mount and front access versions
- Most models available with glycol circuiting (see glycol product brochure BN-GUCTB)
- Units available with stainless steel housing and drain pan
- Units available with copper fins. Air defrost units also available with polyester coated fins or various coil coatings options.
- Units available with insulated drain pan

# PERFORMANCE DATA: AIR DEFROST

## Model LSC Air Defrost | 60 Hz

Model	Capacity				Fan Data		
	R-404A		R-407A/C/F, R-448A/R-449A		No.	CFM	m <sup>3</sup> H
	10°F TD 25°F SST	6°C TD 4°C SST	10°F TD 25°F SST	6°C TD 4°C SST			
	BTUH	Watts	BTUH	Watts			
LSC040	4,000	1,200	4,600	1,300	1	730	1,240
LSC052	5,200	1,500	6,100	1,800	1	700	1,189
LSC065	6,500	1,900	7,800	2,300	1	650	1,104
LSC070	7,000	2,100	7,900	2,300	2	1,460	2,481
LSC090	9,000	2,600	10,600	3,100	2	1,400	2,379
LSC104	10,400	3,000	12,500	3,700	2	1,400	2,379
LSC120	12,000	3,500	14,500	4,200	2	1,300	2,209
LSC130	13,000	3,800	15,500	4,500	2	1,300	2,209
LSC140	14,000	4,100	16,800	4,900	3	2,100	3,568
LSC156	15,600	4,600	18,500	5,400	3	2,100	3,568
LSC180	18,000	5,300	21,200	6,200	3	1,950	3,313
LSC208	20,800	6,100	24,600	7,200	4	2,800	4,758
LSC260	26,000	7,600	30,700	9,000	5	3,250	5,522
LSC312	31,200	9,100	36,800	10,800	6	3,900	6,627
LSC370	37,000	10,800	44,400	13,000	6	3,900	6,627

## Model LSC Air Defrost | 50 Hz †

Model	Capacity				Fan Data		
	R-404A		R-407A/C/F, R-448A/R-449A		No.	CFM	m <sup>3</sup> H
	10°F TD 25°F SST	6°C TD -4°C SST	10°F TD 25°F SST	6°C TD -4°C SST			
	BTUH	Watts	BTUH	Watts			
LSC040	3,800	1,100	4,410	1,300	1	670	1,117
LSC052	4,940	1,400	5,730	1,700	1	630	1,070
LSC065	6,175	1,800	7,160	2,100	1	586	995
LSC070	6,650	1,900	7,710	2,300	2	1,315	2,234
LSC090	8,550	2,500	9,920	2,900	2	1,260	2,142
LSC104	9,880	2,900	11,460	3,400	2	1,260	2,142
LSC120	11,400	3,300	13,220	3,900	2	1,170	1,989
LSC130	12,350	3,600	14,330	4,200	2	1,170	1,989
LSC140	13,300	3,900	15,430	4,500	3	1,891	3,213
LSC156	14,820	4,300	17,200	5,000	3	1,891	3,213
LSC180	17,100	5,000	19,840	5,800	3	1,756	2,984
LSC208	19,760	5,800	22,920	6,700	4	2,521	4,284
LSC260	24,700	7,200	28,650	8,400	5	2,927	4,973
LSC312	29,640	8,700	34,380	10,100	6	3,512	5,967
LSC370	35,150	10,300	40,770	11,900	6	3,512	5,967

† For EC motors, use 60 Hz capacity and airflow values (Units with EC motors operating at 50 Hz will not see a reduction in performance due to the electronic control of the motor)

# SPECIFICATIONS: AIR DEFROST

## Model LSC Air Defrost | 60 Hz

Model	HP	PSC, PSC-TE Motor						EC Motor			
		115/1/60		208-230/1/60		460/1/60		115/1/60		208-230/1/60	
		Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
LSC040	1/15	1.0	82	0.5	91	0.4	117	0.9	57	0.5	59
LSC052	1/15	1.0	82	0.5	91	0.4	117	0.9	57	0.5	59
LSC065	1/15	1.0	82	0.5	91	0.4	117	0.9	57	0.5	59
LSC070	1/15	2.0	164	1.0	182	0.8	234	1.8	114	1.0	118
LSC090	1/15	2.0	164	1.0	182	0.8	234	1.8	114	1.0	118
LSC104	1/15	2.0	164	1.0	182	0.8	234	1.8	114	1.0	118
LSC120	1/15	2.0	164	1.0	182	0.8	234	1.8	114	1.0	118
LSC130	1/15	2.0	164	1.0	182	0.8	234	1.8	114	1.0	118
LSC140	1/15	3.0	246	1.5	273	1.2	351	2.7	171	1.5	177
LSC156	1/15	3.0	246	1.5	273	1.2	351	2.7	171	1.5	177
LSC180	1/15	3.0	246	1.5	273	1.2	351	2.7	171	1.5	177
LSC208	1/15	4.0	328	2.0	364	1.6	468	3.6	228	2.0	236
LSC260	1/15	5.0	410	2.5	455	2.0	585	4.5	285	2.5	295
LSC312	1/15	6.0	492	3.0	546	2.4	702	5.4	342	3.0	354
LSC370	1/15	6.0	492	3.0	546	2.4	702	5.4	342	3.0	354

## Model LSC Air Defrost | 50 Hz

Model	HP	PSC Motor						EC Motor			
		110/1/50		220/1/50		380/1/50		110/1/50		220/1/50	
		Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
LSC040	1/15	1.0	68	0.5	65	0.4	82	0.9	57	0.5	59
LSC052	1/15	1.0	68	0.5	65	0.4	82	0.9	57	0.5	59
LSC065	1/15	1.0	68	0.5	65	0.4	82	0.9	57	0.5	59
LSC070	1/15	2.0	136	1.0	130	0.8	164	1.8	114	1.0	118
LSC090	1/15	2.0	136	1.0	130	0.8	164	1.8	114	1.0	118
LSC104	1/15	2.0	136	1.0	130	0.8	164	1.8	114	1.0	118
LSC120	1/15	2.0	136	1.0	130	0.8	164	1.8	114	1.0	118
LSC130	1/15	2.0	136	1.0	130	0.8	164	1.8	114	1.0	118
LSC140	1/15	3.0	204	1.5	195	1.2	246	2.7	171	1.5	177
LSC156	1/15	3.0	204	1.5	195	1.2	246	2.7	171	1.5	177
LSC180	1/15	3.0	204	1.5	195	1.2	246	2.7	171	1.5	177
LSC208	1/15	4.0	272	2.0	260	1.6	328	3.6	228	2.0	236
LSC260	1/15	5.0	340	2.5	325	2.0	410	4.5	285	2.5	295
LSC312	1/15	6.0	408	3.0	390	2.4	492	5.4	342	3.0	354
LSC370	1/15	6.0	408	3.0	390	2.4	492	5.4	342	3.0	354

# PERFORMANCE DATA : ELECTRIC DEFROST

## Model LSF/LFF Electric Defrost | 60 Hz

Model	Capacity				Fan Data			
	R-404A		R-407A/C/F, R-448A/R-449A		No.	CFM	m³H	
	10°F TD -20°F SST	6°C TD -29°C SST	10°F TD -20°F SST	6°C TD -29°C SST				
	BTUH	Watts	BTUH	Watts				
6 Fins Per Inch	LSF035	3,500	1,000	3,900	1,100	1	700	1,189
	LSF040	4,000	1,200	4,500	1,300	1	700	1,189
	LSF047	4,700	1,400	5,300	1,600	1	650	1,104
	LSF065	6,500	1,900	7,200	2,100	2	1,400	2,379
	LSF075	7,500	2,200	8,400	2,500	2	1,300	2,209
	LSF090	9,000	2,600	9,900	2,900	2	1,300	2,209
	LSF120	12,000	3,500	13,500	4,000	3	2,100	3,568
	LSF140	14,000	4,100	16,000	4,700	3	1,950	3,313
	LSF160	16,000	4,700	17,900	5,200	4	2,600	4,418
	LSF180	18,000	5,300	20,100	5,900	4	2,600	4,418
	LSF200	20,000	5,900	22,400	6,600	5	3,250	5,522
	LSF240	24,000	7,000	26,900	7,900	6	3,900	6,627
	LSF280	28,000	8,200	31,400	9,200	6	3,900	6,627
4 Fins Per Inch	LFF041	4,100	1,200	4,500	1,300	1	690	1,172
	LFF068	6,800	2,000	7,400	2,200	2	1,380	2,345
	LFF080	8,000	2,300	8,800	2,600	2	1,380	2,345
	LFF102	10,200	3,000	11,300	3,300	3	2,170	3,687
	LFF136	13,600	4,000	15,100	4,400	4	2,760	4,690
	LFF170	17,000	5,000	19,000	5,600	5	3,450	5,862
	LFF204	20,400	6,000	22,800	6,700	6	4,140	7,035
	LFF235	23,500	6,900	25,900	7,600	6	4,140	7,035

## Model LSF/LFF Electric Defrost | 50 Hz †

Model	Capacity				Fan Data			
	R-404A		R-407A/C/F, R-448A/R-449A		No.	CFM	m³H	
	10°F TD -20°F SST	6°C TD -29°C SST	10°F TD -20°F SST	6°C TD -29°C SST				
	BTUH	Watts	BTUH	Watts				
6 Fins Per Inch	LSF035	3,325	1,000	3,860	1,100	1	630	1,070
	LSF040	3,800	1,100	4,410	1,300	1	630	1,070
	LSF047	4,465	1,300	5,180	1,500	1	586	995
	LSF065	6,175	1,800	7,160	2,100	2	1,260	2,142
	LSF075	7,125	2,100	8,270	2,400	2	1,170	1,989
	LSF090	8,550	2,500	9,920	2,900	2	1,170	1,989
	LSF120	11,400	3,300	13,220	3,900	3	1,891	3,213
	LSF140	13,300	3,900	15,430	4,500	3	1,756	2,984
	LSF160	15,200	4,500	17,630	5,200	4	2,341	3,978
	LSF180	17,100	5,000	19,840	5,800	4	2,341	3,978
	LSF200	19,000	5,600	22,040	6,500	5	2,927	4,973
	LSF240	22,800	6,700	26,450	7,800	6	3,512	5,967
	LSF280	26,600	7,800	30,860	9,000	6	3,512	5,967
4 Fins Per Inch	LFF041	3,895	1,100	4,520	1,300	1	621	1,056
	LFF068	6,460	1,900	7,490	2,200	2	1,243	2,111
	LFF080	7,600	2,200	8,820	2,600	2	1,243	2,111
	LFF102	9,690	2,800	11,240	3,300	3	1,954	3,320
	LFF136	12,920	3,800	14,990	4,400	4	2,485	4,223
	LFF170	16,150	4,700	18,730	5,500	5	3,107	5,279
	LFF204	19,380	5,700	22,480	6,600	6	3,728	6,334
	LFF235	22,325	6,500	25,900	7,600	6	3,728	6,334

### 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

† For EC motors, use 60 Hz capacity and airflow values (Units with EC motors operating at 50 Hz will not see a reduction in performance due to the electronic control of the motor)

# SPECIFICATIONS: ELECTRIC DEFROST

## Model LSF/LFF Electric Defrost | 60 Hz

Model	HP	PSC, PSC-TE Motor				EC Motor		Defrost Heaters				
		208-230/1/60		460/1/60		208-230/1/60		Watts	230/1/60	230/3/60	460/1/60	
		Amps	Watts	Amps	Watts	Amps	Watts		Total Amps			
6 Fins Per Inch	LSF035	1/15	0.5	91	0.4	117	0.5	59	900	3.9	2.3	2.0
	LSF040	1/15	0.5	91	0.4	117	0.5	59	900	3.9	2.3	2.0
	LSF047	1/15	0.5	91	0.4	117	0.5	59	900	3.9	2.3	2.0
	LSF065	1/15	1.0	182	0.8	234	1.0	118	1,800	7.8	4.5	3.9
	LSF075	1/15	1.0	182	0.8	234	1.0	118	1,800	7.8	4.5	3.9
	LSF090	1/15	1.0	182	0.8	234	1.0	118	1,800	7.8	4.5	3.9
	LSF120	1/15	1.5	273	1.2	351	1.5	177	2,700	11.7	6.8	5.9
	LSF140	1/15	1.5	273	1.2	351	1.5	177	2,700	11.7	6.8	5.9
	LSF160	1/15	2.0	364	1.6	468	2.0	236	3,600	15.7	9.0	7.8
	LSF180	1/15	2.0	364	1.6	468	2.0	236	3,600	15.7	9.0	7.8
	LSF200	1/15	2.5	455	2.0	585	2.5	295	4,500	19.6	11.3	9.8
	LSF240	1/15	3.0	546	2.4	702	3.0	354	5,400	23.5	13.6	11.7
	LSF280	1/15	3.0	546	2.4	702	3.0	354	5,400	23.5	13.6	11.7
4 Fins Per Inch	LFF041	1/15	0.5	91	0.4	117	0.5	59	900	3.9	2.3	2.0
	LFF068	1/15	1.0	182	0.8	234	1.0	118	1,800	7.8	4.5	3.9
	LFF080	1/15	1.0	182	0.8	234	1.0	118	1,800	7.8	4.5	3.9
	LFF102	1/15	1.5	273	1.2	351	1.5	177	2,700	11.7	6.8	5.9
	LFF136	1/15	2.0	364	1.6	468	2.0	236	3,600	15.7	9.0	7.8
	LFF170	1/15	2.5	455	2.0	585	2.5	295	4,500	19.6	11.3	9.8
	LFF204	1/15	3.0	546	2.4	702	3.0	354	5,400	23.5	13.6	11.7
	LFF235	1/15	3.0	546	2.4	702	3.0	354	5,400	23.5	13.6	11.7

## Model LSF/LFF Electric Defrost | 50 Hz

Model	HP	PSC Motor				EC Motor		Defrost Heaters				
		220/1/50		380/1/50		220/1/50		Watts	220/1/50	220/3/50	380/1/50	
		Amps	Watts	Amps	Watts	Amps	Watts		Total Amps			
6 Fins Per Inch	LSF035	1/15	0.5	65	0.4	82	0.5	59	823	3.7	2.2	1.6
	LSF040	1/15	0.5	65	0.4	82	0.5	59	823	3.7	2.2	1.6
	LSF047	1/15	0.5	65	0.4	82	0.5	59	823	3.7	2.2	1.6
	LSF065	1/15	1.0	130	0.8	164	1.0	118	1,647	7.5	4.3	3.2
	LSF075	1/15	1.0	130	0.8	164	1.0	118	1,647	7.5	4.3	3.2
	LSF090	1/15	1.0	130	0.8	164	1.0	118	1,647	7.5	4.3	3.2
	LSF120	1/15	1.5	195	1.2	246	1.5	177	2,470	11.2	6.5	4.9
	LSF140	1/15	1.5	195	1.2	246	1.5	177	2,470	11.2	6.5	4.9
	LSF160	1/15	2.0	260	1.6	328	2.0	236	3,294	15.0	8.6	6.5
	LSF180	1/15	2.0	260	1.6	328	2.0	236	3,294	15.0	8.6	6.5
	LSF200	1/15	2.5	325	2.0	410	2.5	295	4,117	18.7	10.8	8.1
	LSF240	1/15	3.0	390	2.4	492	3.0	354	4,941	22.5	13.0	9.7
	LSF280	1/15	3.0	390	2.4	492	3.0	354	4,941	22.5	13.0	9.7
4 Fins Per Inch	LFF041	1/15	0.5	65	0.4	82	0.5	59	823	3.7	2.2	1.6
	LFF068	1/15	1.0	130	0.8	164	1.0	118	1,647	7.5	4.3	3.2
	LFF080	1/15	1.0	130	0.8	164	1.0	118	1,647	7.5	4.3	3.2
	LFF102	1/15	1.5	195	1.2	246	1.5	177	2,470	11.2	6.5	4.9
	LFF136	1/15	2.0	260	1.6	328	2.0	236	3,294	15.0	8.6	6.5
	LFF170	1/15	2.5	325	2.0	410	2.5	295	4,117	18.7	10.8	8.1
	LFF204	1/15	3.0	390	2.4	492	3.0	354	4,941	22.5	13.0	9.7
	LFF235	1/15	3.0	390	2.4	492	3.0	354	4,941	22.5	13.0	9.7

# PERFORMANCE DATA : HOT GAS DEFROST

## Model LSH Hot Gas Defrost | 60 Hz

Model	Capacity				Fan Data			
	R-404A		R-407A/C/F, R-448A/R-449A		No.	CFM	m³H	
	10°F TD -20°F SST	6°C TD -29°C SST	10°F TD -20°F SST	6°C TD -29°C SST				
	BTUH	Watts	BTUH	Watts				
6 Fins Per Inch	LSH035	3,500	1,000	3,900	1,100	1	700	1,189
	LSH040	4,000	1,200	4,500	1,300	1	700	1,189
	LSH047	4,700	1,400	5,300	1,600	1	650	1,104
	LSH065	6,500	1,900	7,200	2,100	2	1,400	2,379
	LSH075	7,500	2,200	8,400	2,500	2	1,300	2,209
	LSH090	9,000	2,600	9,900	2,900	2	1,300	2,209
	LSH120	12,000	3,500	13,500	4,000	3	2,100	3,568
	LSH140	14,000	4,100	16,000	4,700	3	1,950	3,313
	LSH160	16,000	4,700	17,900	5,200	4	2,600	4,418
	LSH180	18,000	5,300	20,100	5,900	4	2,600	4,418
	LSH200	20,000	5,900	22,400	6,600	5	3,250	5,522
	LSH240	24,000	7,000	26,900	7,900	6	3,900	6,627
LSH280	28,000	8,200	31,400	9,200	6	3,900	6,627	
4 Fins Per Inch	LSH041	4,100	1,200	4,500	1,300	1	690	1,172
	LSH068	6,800	2,000	7,400	2,200	2	1,380	2,345
	LSH080	8,000	2,300	8,800	2,600	2	1,380	2,345
	LSH102	10,200	3,000	11,300	3,300	3	2,170	3,687
	LSH136	13,600	4,000	15,100	4,400	4	2,760	4,690
	LSH170	17,000	5,000	19,000	5,600	5	3,450	5,862
	LSH204	20,400	6,000	22,800	6,700	6	4,140	7,035
	LSH235	23,500	6,900	25,900	7,600	6	4,140	7,035

## Model LSH Hot Gas Defrost | 50 Hz †

Model	Capacity				Fan Data			
	R-404A		R-407A/C/F, R-448A/R-449A		No.	CFM	m³H	
	10°F TD -20°F SST	6°C TD -29°C SST	10°F TD -20°F SST	6°C TD -29°C SST				
	BTUH	Watts	BTUH	Watts				
6 Fins Per Inch	LSH035	3,325	1,000	3,860	1,100	1	630	1,070
	LSH040	3,800	1,100	4,410	1,300	1	630	1,070
	LSH047	4,465	1,300	5,180	1,500	1	586	995
	LSH065	6,175	1,800	7,160	2,100	2	1,260	2,142
	LSH075	7,125	2,100	8,270	2,400	2	1,170	1,989
	LSH090	8,550	2,500	9,920	2,900	2	1,170	1,989
	LSH120	11,400	3,300	13,220	3,900	3	1,891	3,213
	LSH140	13,300	3,900	15,430	4,500	3	1,756	2,984
	LSH160	15,200	4,500	17,630	5,200	4	2,341	3,978
	LSH180	17,100	5,000	19,840	5,800	4	2,341	3,978
	LSH200	19,000	5,600	22,040	6,500	5	2,927	4,973
	LSH240	22,800	6,700	26,450	7,800	6	3,512	5,967
LSH280	26,600	7,800	30,860	9,000	6	3,512	5,967	
4 Fins Per Inch	LSH041	3,895	1,100	4,520	1,300	1	621	1,056
	LSH068	6,460	1,900	7,490	2,200	2	1,243	2,111
	LSH080	7,600	2,200	8,820	2,600	2	1,243	2,111
	LSH102	9,690	2,800	11,240	3,300	3	1,954	3,320
	LSH136	12,920	3,800	14,990	4,400	4	2,485	4,223
	LSH170	16,150	4,700	18,730	5,500	5	3,107	5,279
	LSH204	19,380	5,700	22,480	6,600	6	3,728	6,334
	LSH235	22,325	6,500	25,900	7,600	6	3,728	6,334

### 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

† For EC motors, use 60 Hz capacity and airflow values (Units with EC motors operating at 50 Hz will not see a reduction in performance due to the electronic control of the motor)



# SPECIFICATIONS: HOT GAS DEFROST

## Model LSH Hot Gas Defrost | 60 Hz

Model	HP	PSC, PSC-TE Motor						EC Motor				Drain Pan Heaters*				
		115/1/60		208-230/1/60		460/1/60		115/1/60		208-230/1/60		Watts	115/1/60	230/1/60	460/1/60	
		Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts		Total Amps			
6 Fins Per Inch	LSH035	1/15	1.0	82	0.5	91	0.4	117	1.1	57	0.6	59	300	2.6	1.3	0.7
	LSH040	1/15	1.0	82	0.5	91	0.4	117	1.1	57	0.6	59	300	2.6	1.3	0.7
	LSH047	1/15	1.0	82	0.5	91	0.4	117	1.1	57	0.6	59	300	2.6	1.3	0.7
	LSH065	1/15	2.0	164	1.0	182	0.8	234	2.0	114	1.1	118	600	5.2	2.6	1.3
	LSH075	1/15	2.0	164	1.0	182	0.8	234	2.0	114	1.1	118	600	5.2	2.6	1.3
	LSH090	1/15	2.0	164	1.0	182	0.8	234	2.0	114	1.1	118	600	5.2	2.6	1.3
	LSH120	1/15	3.0	246	1.5	273	1.2	351	2.9	171	1.6	177	900	7.8	3.9	2.0
	LSH140	1/15	3.0	246	1.5	273	1.2	351	2.9	171	1.6	177	900	7.8	3.9	2.0
	LSH160	1/15	4.0	328	2.0	364	1.6	468	3.8	228	2.1	236	1,200	10.4	5.2	2.6
	LSH180	1/15	4.0	328	2.0	364	1.6	468	3.8	228	2.1	236	1,200	10.4	5.2	2.6
	LSH200	1/15	5.0	410	2.5	455	2.0	585	4.7	285	2.6	295	1,500	13.0	6.5	3.3
	LSH240	1/15	6.0	492	3.0	546	2.4	702	5.6	342	3.1	354	1,800	15.7	7.8	3.9
LSH280	1/15	6.0	492	3.0	546	2.4	702	5.6	342	3.1	354	1,800	15.7	7.8	3.9	
4 Fins Per Inch	LSH041	1/15	1.0	82	0.5	91	0.4	117	1.1	57	0.6	59	300	2.6	1.3	0.7
	LSH068	1/15	2.0	164	1.0	182	0.8	234	2.0	114	1.1	118	600	5.2	2.6	1.3
	LSH080	1/15	2.0	164	1.0	182	0.8	234	2.0	114	1.1	118	600	5.2	2.6	1.3
	LSH102	1/15	3.0	246	1.5	273	1.2	351	2.9	171	1.6	177	900	7.8	3.9	2.0
	LSH136	1/15	4.0	328	2.0	364	1.6	468	3.8	228	2.1	236	1,200	10.4	5.2	2.6
	LSH170	1/15	5.0	410	2.5	455	2.0	585	4.7	285	2.6	295	1,500	13.0	6.5	3.3
	LSH204	1/15	6.0	492	3.0	546	2.4	702	5.6	342	3.1	354	1,800	15.7	7.8	3.9
	LSH235	1/15	6.0	492	3.0	546	2.4	702	5.6	342	3.1	354	1,800	15.7	7.8	3.9

## Model LSH Hot Gas Defrost | 50 Hz

Model	HP	PSC Motor						EC Motor				Drain Pan Heaters*				
		110/1/50		220/1/50		380/1/50		110/1/50		220/1/50		Watts	110/1/50	220/3/50	380/1/50	
		Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts		Total Amps			
6 Fins Per Inch	LSH035	1/15	1.0	68	0.5	65	0.4	82	1.1	57	0.6	59	275	2.5	1.3	0.6
	LSH040	1/15	1.0	68	0.5	65	0.4	82	1.1	57	0.6	59	275	2.5	1.3	0.6
	LSH047	1/15	1.0	68	0.5	65	0.4	82	1.1	57	0.6	59	275	2.5	1.3	0.6
	LSH065	1/15	2.0	136	1.0	130	0.8	164	2.0	114	1.1	118	549	5.0	2.5	1.1
	LSH075	1/15	2.0	136	1.0	130	0.8	164	2.0	114	1.1	118	549	5.0	2.5	1.1
	LSH090	1/15	2.0	136	1.0	130	0.8	164	2.0	114	1.1	118	549	5.0	2.5	1.1
	LSH120	1/15	3.0	204	1.5	195	1.2	246	2.9	171	1.6	177	823	7.5	3.7	1.6
	LSH140	1/15	3.0	204	1.5	195	1.2	246	2.9	171	1.6	177	823	7.5	3.7	1.6
	LSH160	1/15	4.0	272	2.0	260	1.6	328	3.8	228	2.1	236	1,098	10.0	5.0	2.2
	LSH180	1/15	4.0	272	2.0	260	1.6	328	3.8	228	2.1	236	1,098	10.0	5.0	2.2
	LSH200	1/15	5.0	340	2.5	325	2.0	410	4.7	285	2.6	295	1,372	12.5	6.2	2.7
	LSH240	1/15	6.0	408	3.0	390	2.4	492	5.6	342	3.1	354	1,649	15.0	7.5	3.2
LSH280	1/15	6.0	408	3.0	390	2.4	492	5.6	342	3.1	354	1,649	15.0	7.5	3.2	
4 Fins Per Inch	LSH041	1/15	1.0	68	0.5	65	0.4	82	1.1	57	0.6	59	275	2.5	1.3	0.6
	LSH068	1/15	2.0	136	1.0	130	0.8	164	2.0	114	1.1	118	549	5.0	2.5	1.1
	LSH080	1/15	2.0	136	1.0	130	0.8	164	2.0	114	1.1	118	549	5.0	2.5	1.1
	LSH102	1/15	3.0	204	1.5	195	1.2	246	2.9	171	1.6	177	823	7.5	3.7	1.6
	LSH136	1/15	4.0	272	2.0	260	1.6	328	3.8	228	2.1	236	1,098	10.0	5.0	2.2
	LSH170	1/15	5.0	340	2.5	325	2.0	410	4.7	285	2.6	295	1,372	12.5	6.2	2.7
	LSH204	1/15	6.0	408	3.0	390	2.4	492	5.6	342	3.1	354	1,649	15.0	7.5	3.2
	LSH235	1/15	6.0	408	3.0	390	2.4	492	5.6	342	3.1	354	1,649	15.0	7.5	3.2

\* Optional with electric drain pan

## Model LSC Air Defrost

Model	No. of Fans	Connections (in.)				Approx. Net Wt.	
		Coil Inlet OD	Suction OD	External Equalizer OD	Drain MPT	lbs.	kg
LSC040	1	1/2	5/8	1/4	3/4	28	13
LSC052	1	1/2	5/8	1/4	3/4	31	15
LSC065	1	1/2	7/8	1/4	3/4	34	16
LSC070	2	1/2	7/8	1/4	3/4	45	21
LSC090	2	1/2	7/8	1/4	3/4	48	22
LSC104	2	1/2	7/8	1/4	3/4	49	23
LSC120	2	1/2	7/8	1/4	3/4	51	24
LSC130	2	1/2	7/8	1/4	3/4	53	25
LSC140	3	1/2	7/8	1/4	3/4	63	29
LSC156	3	1/2	7/8	1/4	3/4	67	31
LSC180	3	1/2	7/8	1/4	3/4	69	32
LSC208	4	1/2	1-1/8	1/4	3/4	82	38
LSC260	5	1/2	1-1/8	1/4	3/4	103	47
LSC312	6	1/2	1-1/8	1/4	3/4	124	57
LSC370	6	1/2	1-3/8	1/4	3/4	127	58

## Model LSF/LFF Electric Defrost

Model	No. of Fans	Connections (in.)				Approx. Net Wt.	
		Coil Inlet OD	Suction OD	External Equalizer OD	Drain MPT	lbs.	kg
LSF035	1	1/2	5/8	1/4	3/4	24	11
LSF040	1	1/2	5/8	1/4	3/4	26	12
LSF047	1	1/2	5/8	1/4	3/4	29	14
LSF065	2	1/2	5/8	1/4	3/4	43	20
LSF075	2	1/2	5/8	1/4	3/4	45	21
LSF090	2	1/2	7/8	1/4	3/4	48	22
LSF120	3	1/2	7/8	1/4	3/4	60	28
LSF140	3	1/2	7/8	1/4	3/4	62	29
LSF160	4	1/2	1-1/8	1/4	3/4	81	37
LSF180	4	1/2	1-1/8	1/4	3/4	84	39
LSF200	5	1/2	1-1/8	1/4	3/4	101	46
LSF240	6	1/2	1-1/8	1/4	3/4	121	55
LSF280	6	1/2	1-1/8	1/4	3/4	124	57
LFF041	1	1/2	5/8	1/4	3/4	28	13
LFF068	2	1/2	7/8	1/4	3/4	44	21
LFF080	2	1/2	7/8	1/4	3/4	47	22
LFF102	3	1/2	7/8	1/4	3/4	59	27
LFF136	4	1/2	1-1/8	1/4	3/4	80	37
LFF170	5	1/2	1-1/8	1/4	3/4	100	46
LFF204	6	1/2	1-1/8	1/4	3/4	120	55
LFF235	6	1/2	1-1/8	1/4	3/4	123	56

## Model LSH Hot Gas Defrost

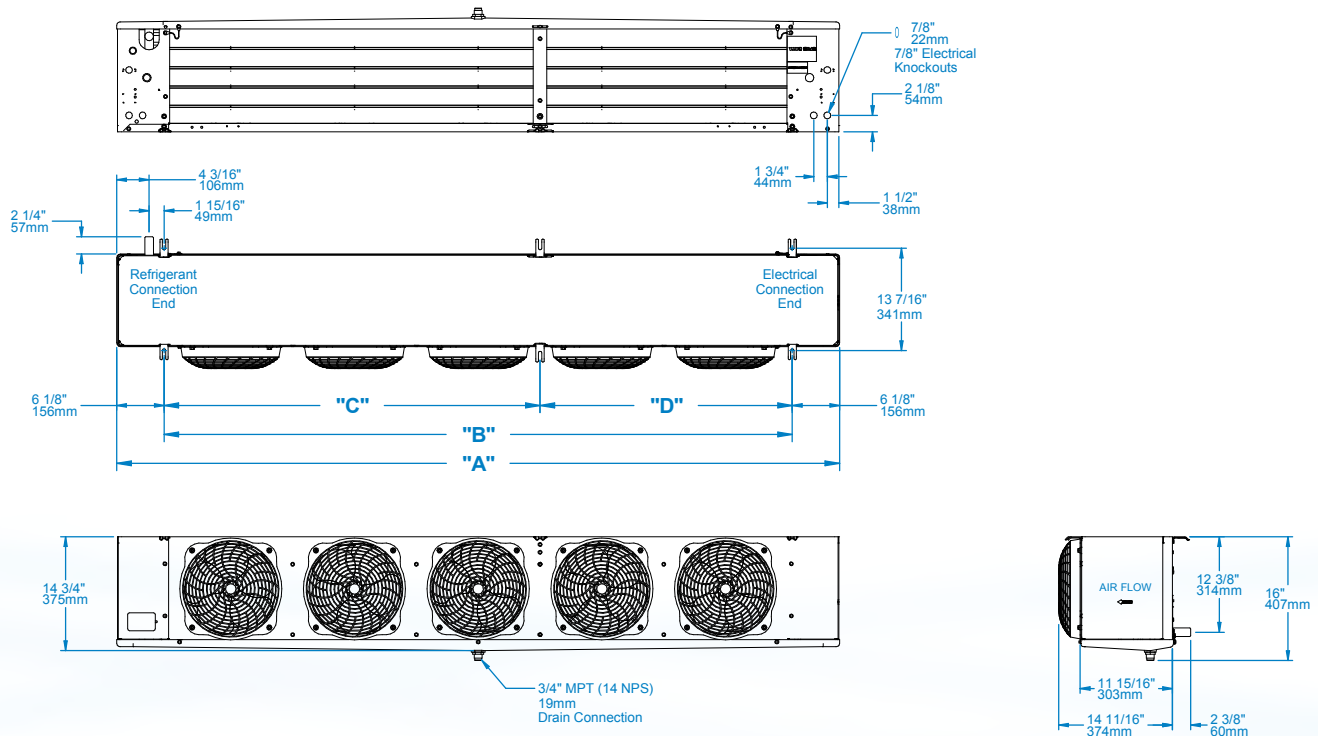
Model	No. of Fans	Connections (in.)						Approx. Net Wt.		
		Coil Inlet OD	Suction OD	External Equalizer OD	Drain MPT	Side Port OD	Hot Gas Pan Conns. OD	lbs.	kg	
6 Fins Per Inch	LSH035	1	5/8	5/8	1/4	3/4	3/8	5/8	26	12
	LSH040	1	5/8	5/8	1/4	3/4	3/8	5/8	28	13
	LSH047	1	5/8	5/8	1/4	3/4	3/8	5/8	31	15
	LSH065	2	5/8	5/8	1/4	3/4	3/8	5/8	45	21
	LSH075	2	5/8	7/8	1/4	3/4	3/8	5/8	47	22
	LSH090	2	7/8	7/8	1/4	3/4	3/8	5/8	50	23
	LSH120	3	7/8	7/8	1/4	3/4	3/8	5/8	62	29
	LSH140	3	7/8	7/8	1/4	3/4	3/8	5/8	64	30
	LSH160	4	7/8	1-1/8	1/4	3/4	3/8	5/8	83	38
	LSH180	4	1-1/8	1-1/8	1/4	3/4	3/8	5/8	86	40
	LSH200	5	1-1/8	1-1/8	1/4	3/4	3/8	5/8	103	47
	LSH240	6	1-1/8	1-1/8	1/4	3/4	3/8	5/8	123	56
4 Fins Per Inch	LSH280	6	1-1/8	1-1/8	1/4	3/4	3/8	5/8	126	57
	LSH041	1	5/8	5/8	1/4	3/4	3/8	5/8	30	14
	LSH068	2	5/8	7/8	1/4	3/4	3/8	5/8	46	21
	LSH080	2	5/8	7/8	1/4	3/4	3/8	5/8	49	23
	LSH102	3	7/8	7/8	1/4	3/4	3/8	5/8	61	28
	LSH136	4	7/8	1-1/8	1/4	3/4	3/8	5/8	82	38
	LSH170	5	7/8	1-1/8	1/4	3/4	3/8	5/8	102	47
	LSH204	6	7/8	1-1/8	1/4	3/4	3/8	5/8	122	56
LSH235	6	1-1/8	1-1/8	1/4	3/4	3/8	5/8	125	57	

The standard design for the Climate Control Low Profile Evaporator incorporates a 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, Climate Control 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.

# DIMENSIONAL DATA



## Dimensional Data For All Models

Air Defrost Model	Electric and Hot Gas Defrost Model		No. of Fans	Dimensions							
	6FPI	4FPI		A		B		C		D	
				in	mm	in	mm	in	mm	in	mm
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	-	-	-	-
090	065	-	2	45.50	1,155.7	33.25	845	-	-	-	-
104	-	-	2	45.50	1,155.7	33.25	845	-	-	-	-
120	075	068	2	45.50	1,155.7	33.25	845	-	-	-	-
130	090	080	2	45.50	1,155.7	33.25	845	-	-	-	-
140	120	102	3	61.50	1,562.1	49.25	1,251	-	-	-	-
156	-	-	3	61.50	1,562.1	49.25	1,251	-	-	-	-
180	140	-	3	61.50	1,562.1	49.25	1,251	-	-	-	-
208	160	-	4	77.50	1,968.5	65.25	1,657	-	-	-	-
-	180	136	4	77.50	1,968.5	65.25	1,657	-	-	-	-
260	200	170	5	93.50	2,374.9	81.25	2,064	48.63	1,235.1	32.63	828.7
312	240	204	6	109.50	2,781.3	97.25	2,470	48.63	1,235.1	48.63	1,235.1
370	280	235	6	109.50	2,781.3	97.25	2,470	48.63	1,235.1	48.63	1,235.1

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

# HOT GAS REVERSE CYCLE KITS

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

	Shipped-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
	<b>HGT 6 FPI</b>			
035-065	50169304	50169304	52733601	52733801
075-140	50169305	50169305	52733602	52733802
160-280	50169306	50169306	52733603	52733802
<b>HGT 4 FPI</b>				
41	50169304	50169304	52733801	52733801
068-102	50169305	50169305	52733802	52733802
136-235	50169306	50169306	52733802	52733802

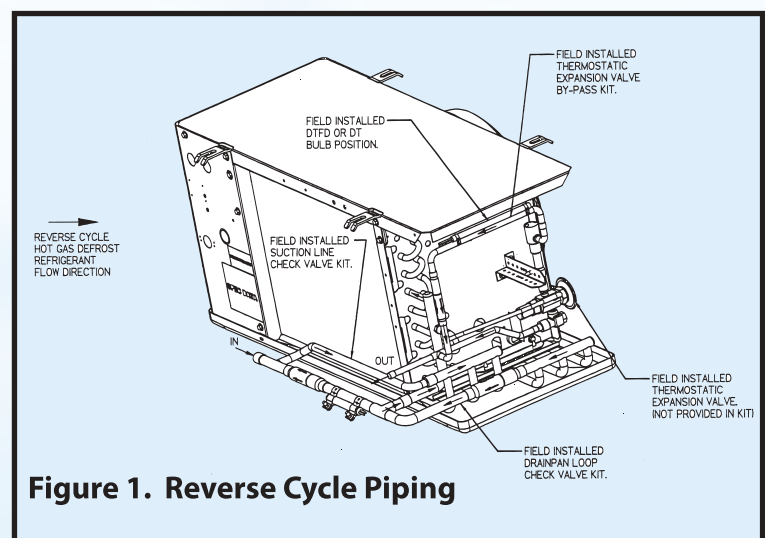
Recommendation is that both check valve kits are ordered (For hot gas models with the hot gas loop drain pan ONLY):

**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 with a hot gas loop drain pan 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**

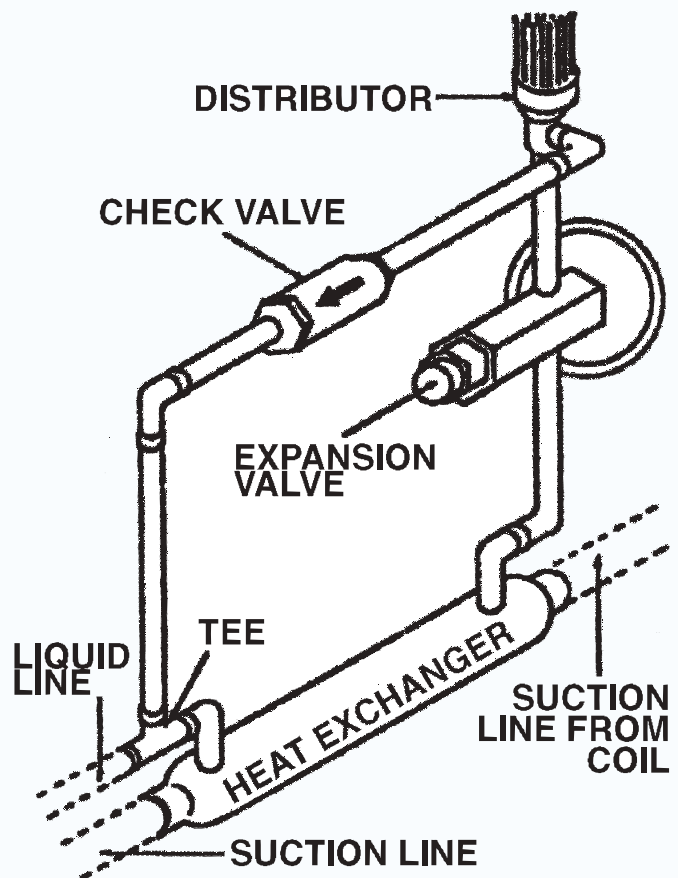
## HOT GAS REVERSE CYCLE KITS (cont.)

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 shipped-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 Flow Controls 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 shipped-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.



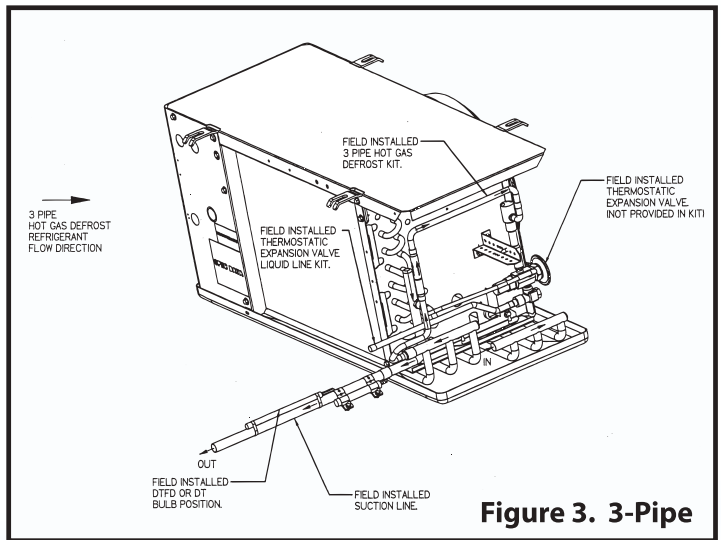
**Figure 2. Typical Liquid Line Bypass Kit**

(Shown assembled and modified for heat exchanger)

# 3-PIPE HOT GAS DEFROST

The hot gas defrost unit coolers conform 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 shipped-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 shipped-loose. The thermostatic expansion valve could be ordered separately and shipped-loose or the thermostatic expansion valve could be factory-installed with a liquid line for an additional cost.



**Figure 3. 3-Pipe**

The liquid line is designed for the body styles of the Sporlan SQE, SBF, EG and the Flow Controls 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.

HGT 6 FPI	Shipped-loose			Factory-installed		
	TXV Liquid Line			TXV Liquid Line		
	SQE/SBF	EG	EG	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	SQE/SBF	EG	EG	SQE/SBF	EG	HFESC
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 with a hot gas loop drain pan on 0°F applications and below, an insulated drain pan is required.

HGT 6 FPI	Shipped-loose	Factory-installed
	Drain Pan Loop Check Valve Kit	Drain Pan Loop Check Valve Kit
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

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No. Fans	Air Defrost	Electric & Hot Gas Defrost	
	6 FPI	6 FPI	4 FPI
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

## Motor/Fan Blade/Fan Guards

Part #	Description	No. Fans
25309501	Motor 115/1/60/50 Totally Enclosed PSC/PSC	1 - 6
25309601	Motor 208-230/1/60/50 Totally Enclosed PSC	1 - 6
25309701	Motor 460/1/60/50 Totally Enclosed PSC	1 - 6
25309801	Motor 208-230/1/60/50 PSC	1 - 6
25308701	Motor 460/1/60/50 PSC	1 - 6
25317701	Motor 208-230/1/60 EC	1 - 6
25317801	Motor 115/1/60 EC	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 & 230V motors	1 - 6
23103301	Motor Mount used with 460V motors	1 - 6

## Cabinet Components

Part #	Description	No. 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 #	Description	Voltage	No. Fans
<b>Coil Heater</b>			
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
<b>Bottom Coil Heater</b>			
24752401	150 W	208-230/1/60	1
24752402	300 W	208-230/1/60	2
24752403	450 W	208-230/1/60	3
24752404	600 W	208-230/1/60	4
24752405	750 W	208-230/1/60	5
24752406	900 W	208-230/1/60	6
<b>Drain Pan Heater</b>			
24752501	150 W	208-230/1/60	1
24752502	300 W	208-230/1/60	2
24752503	450 W	208-230/1/60	3
24752504	600 W	208-230/1/60	4
24752505	750 W	208-230/1/60	5
24752506	900 W	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
4267W	Defrost Termination/Fan Delay — Adjustable type	1 - 6
2891040	Room Thermostat	1 - 6
5708L	Heater Safety — Klixon type	1 - 6

## Drain Fittings

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



# STANDARD NOZZLE SELECTION

## Model LSC Air Defrost

Model	No. of Fans	Distributor Tube (in.)		No. of Circuits	R-404A, R-507A	R-407A, R-407F, R-407C	R-448A, R-449A	R-22*
		OD	Length					
LSC040	1	3/8	6	1	-	-	-	-
LSC052	1	3/8	6	1	---	---	---	---
LSC065	1	3/16	15	2	L-1/2	L-1/2	L-3/4	L-1/3
LSC070	2	3/16	15	2	L-1/2	L-1/2	L-3/4	L-1/3
LSC090	2	3/16	15	3	L-3/4	L-3/4	L-1	L-1/2
LSC104	2	3/16	15	3	L-3/4	L-3/4	L-1	L-1/2
LSC120	2	3/16	15	3	L-1	L-1	L-1-1/2	L-3/4
LSC130	2	3/16	15	4	L-1	L-1	L-1-1/2	L-3/4
LSC140	3	3/16	15	4	L-1	L-1	L-1-1/2	L-3/4
LSC156	3	3/16	15	5	L-1	L-1	L-1-1/2	L-3/4
LSC180	3	3/16	15	5	L-1-1/2	L-1-1/2	L2	L-1
LSC208	4	3/16	15	5	L-1-1/2	L-1-1/2	L2	L-1
LSC260	5	3/16	15	9	L-2	L-2	L-2-1/2	L-1-1/2
LSC312	6	3/16	15	9	L-2-1/2	L-2-1/2	L-3	L-1-1/2
LSC370	6	3/16	15	10	L-2-1/2	L-2-1/2	L-4	L-2

## Model LSF/LFF Electric Defrost

Model	No. of Fans	Distributor Tube (in.)		No. of Circuits	Low Temp. -30°F to 0°F SST -34°C to -18°C SST				Medium Temp. 10°F to 25°F SST -12°C to -4°C SST				
		OD	Length		R-404A, R-507A	R-407A, R-407F, R-407C	R-448A, R-449A	R-22*	R-404A, R-507A	R-407A, R-407F, R-407C	R-448A, R-449A	R-22*	
6 Fins Per Inch	LSF035	1	3/16	15	2	L-1/2	L-1/3	L-1/2	L-1/4	L-1/3	L-1/4	L-1/3	L-1/4
	LSF040	1	3/16	15	2	L-1/2	L-1/2	L-3/4	L-1/3	L-1/3	L-1/3	L-1/2	L-1/4
	LSF047	1	3/16	15	2	L-1/2	L-1/2	L-3/4	L-1/3	L-1/3	L-1/3	L-1/2	L-1/4
	LSF065	2	3/16	15	4	L-3/4	L-3/4	L-1	L-1/2	L-1/2	L-1/2	L-3/4	L-1/3
	LSF075	2	3/16	15	4	L-1	L-1	L-1-1/2	L-3/4	L-3/4	L-3/4	L-1	L-1/2
	LSF090	2	3/16	15	5	L-1	L-1	L-1-1/2	L-3/4	L-3/4	L-3/4	L-1	L-1/2
	LSF120	3	3/16	15	5	L-1-1/2	L-1-1/2	L-2	L-1	L-1	L-1	L-1-1/2	L-3/4
	LSF140	3	3/16	15	6	L-2	L-1-1/2	L-2	L-1	L-1-1/2	L-1	L-1-1/2	L-3/4
	LSF160	4	3/16	15	8	L-2	L-2	L-2-1/2	L-1-1/2	L-1-1/2	L-1-1/2	L-2	L-1
	LSF180	4	3/16	15	10	L-2-1/2	L-2-1/2	L-3	L-1-1/2	L-1-1/2	L-1-1/2	L-2	L-1
	LSF200	5	3/16	15	9	L-2-1/2	L-2-1/2	L-3	L-1-1/2	L-2	L-1-1/2	L-2	L-1
LSF240	6	3/16	15	9	L-3	L-3	L-4	L-2	L-2	L-2	L-2-1/2	L-1-1/2	
LSF280	6	3/16	15	10	L-3	L-3	L-4	L-2	L-2-1/2	L-2-1/2	L-3/4	L-1-1/2	
4 Fins Per Inch	LFF041	1	3/16	15	2	L-1/2	L-1/2	L-3/4	L-1/3	L-1/3	L-1/3	L-1/2	L-1/4
	LFF068	2	3/16	15	4	L-1	L-3/4	L-1	L-1/2	L-1/2	L-1/2	L-3/4	L-1/3
	LFF080	2	3/16	15	4	L-1	L-1	L-1-1/2	L-3/4	L-3/4	L-3/4	L-1	L-1/2
	LFF102	3	3/16	15	5	L-1-1/2	L-1	L-1-1/2	L-3/4	L-1	L-3/4	L-1	L-3/4
	LFF136	4	3/16	15	8	L-2	L-1-1/2	L-2	L-1	L-1	L-1	L-1-1/2	L-3/4
	LFF170	5	3/16	15	8	L-2	L-2	L-2-1/2	L-1-1/2	L-1-1/2	L-1-1/2	L-2	L-1
	LFF204	6	3/16	15	8	L-2-1/2	L-2-1/2	L-3	L-1-1/2	L-1-1/2	L-1-1/2	L-2	L-1-1/2
	LFF235	6	3/16	15	10	L-3	L-3	L-4	L-2	L-2	L-2	L-2-1/2	L-1-1/2

**Note:** Nozzles sized for 90-100°F liquid temperature at expansion valve.  
 Contact Application Engineering for guidance if:  
 ■ Liquid temperature is not 90-100°F  
 ■ Evaporator TD is not 10°-15°F (room temperature – saturated suction temperature)

\*R-22 Nozzles for informational purposes only. Not included with stocking evaporators.

**Caution:** Refrigeration system will not perform properly without correct nozzle!

# STANDARD NOZZLE SELECTION

## Model LSH Hot Gas Defrost

Model	No. of Fans	Distributor Tube (in.)		No. of Circuits	Low Temp. -30°F to 0°F SST -34°C to -18°C SST				Medium Temp. 10°F to 25°F SST -12°C to -4°C SST				
		OD	Length		R-404A, R-507A	R-407A, R-407F, R407C	R-448A, R-449A	R-22*	R-404A, R-507A	R-407A, R-407F, R407C	R-448A, R-449A	R-22*	
6 Fins Per Inch	LSH035	1	1/4	15	2	J-1/2	J-1/2	J-3/4	J-1/4	J-1/3	J-1/4	J-1/3	J-1/4
	LSH040	1	1/4	15	2	J-1/2	J-1/2	J-3/4	J-1/3	J-1/3	J-1/3	J-1/2	J-1/4
	LSH047	1	1/4	15	2	J-3/4	J-1/2	J-3/4	J-1/3	J-1/2	J-1/3	J-1/2	J-1/4
	LSH065	2	1/4	15	4	J-1	J-3/4	J-1	J-1/2	J-1/2	J-1/2	J-3/4	J-1/3
	LSH075	2	1/4	15	4	J-1	J-1	J-1-1/2	J-3/4	J-3/4	J-3/4	J-1	J-1/2
	LSH090	2	1/4	15	5	G-1-1/2	G-1	G-1-1/2	G-3/4	G-3/4	G-3/4	G-1	G-1/2
	LSH120	3	1/4	15	5	G-1-1/2	G-1-1/2	G-2	G-1	G-1	G-1	G-1-1/2	G-3/4
	LSH140	3	1/4	15	6	G-2	G-2	G-2-1/2	G-1-1/2	G-1-1/2	G-1-1/2	G-1-1/2	G-3/4
	LSH160	4	1/4	15	8	G-2	G-2	G-2-1/2	G-1-1/2	G-1-1/2	G-1-1/2	G-2	G-1
	LSH180	4	1/4	15	10	E-2-1/2	E-2-1/2	E-3	E-1-1/2	E-1-1/2	E-1-1/2	E-2	E-1
	LSH200	5	1/4	15	9	E-2-1/2	E-2-1/2	E-4	E-2	E-2	E-2	E-2-1/2	E-1-1/2
	LSH240	6	1/4	15	9	E-3	E-3	E-4	E-2	E-2	E-2	E-2-1/2	E-1-1/2
4 Fins Per Inch	LSH280	6	1/4	15	10	E-4	E-4	E-5	E-2-1/2	E-2-1/2	E-2-1/2	E-3	E-1-1/2
	LSH041	1	1/4	15	2	J-1/2	J-1/2	J-3/4	J-1/3	J-1/3	J-1/3	J-1/2	J-1/4
	LSH068	2	1/4	15	4	J-1	J-1	J-1-1/2	J-3/4	J-3/4	J-1/2	J-3/4	J-1/3
	LSH080	2	1/4	15	4	J-1	J-1	J-1-1/2	J-3/4	J-3/4	J-3/4	J-1	J-1/2
	LSH102	3	1/4	15	5	G-1-1/2	G-1-1/2	G-2	G-1	G-1	G-3/4	G-1	G-3/4
	LSH136	4	1/4	15	8	G-2	G-2	G-2-1/2	G-1-1/2	G-1-1/2	G-1	G-1-1/2	G-3/4
	LSH170	5	1/4	15	8	G-2-1/2	G-2-1/2	G-3	G-1-1/2	G-1-1/2	G-1-1/2	G-2	G-1
	LSH204	6	1/4	15	8	G-3	G-3	G-4	G-2	G-2	G-2	G-2-1/2	G-1-1/2
	LSH235	6	1/4	15	10	E-3	E-3	E-4	E-2	E-2	E-2	E-2-1/2	G-1-1/2

**Note:** Nozzles sized for 90-100°F liquid temperature at expansion valve.

Contact Application Engineering for guidance if:

- Liquid temperature is not 90-100°F
- Evaporator TD is not 10°-15°F (room temperature – saturated suction temperature)

\*R-22 Nozzles for informational purposes only. Not included with stocking evaporators.

**Caution:** Refrigeration system will not perform properly without correct nozzle!





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