



Center Mount Unit Coolers

Technical Guide

Models ACM | Air Defrost

ECM | Electric Defrost

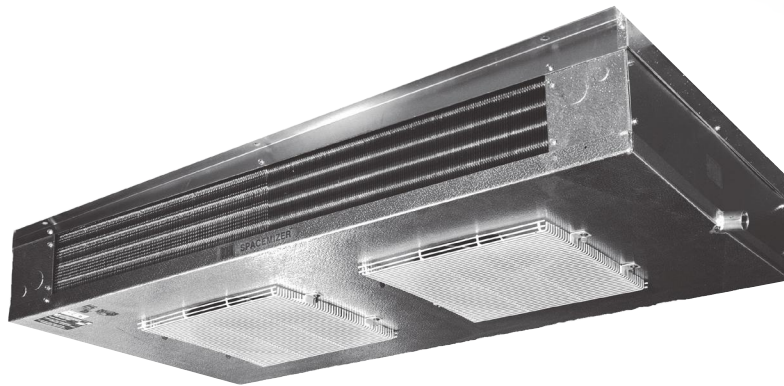


Table of Contents

Nomenclature.....	2
Features & Benefits.....	3
Performance Data	4
Specifications	5
Physical Data.....	6
Dimensional Data	6
Replacement Parts by InterLink™.....	7
Standard Nozzle Selection.....	7



Choose the most energy-efficient motor available for evaporators.



The EC motor is an energy sufficient option on Larkin Center Mount 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

ACM	052	A	G	E
Model Series	Capacity	Electrical Code	Control Option	Design Revision
ACM = Larkin Center Mount, air defrost	# BTUH x 100 (R-404A)	A = 115/1/60	G = intelliGen™	
ECM = Larkin Center Mount, electric defrost		B = 208-230/1/60		
		AE = 115/1/60 (EC)		
		BE = 208-230/1/60 (EC)		

Features & Benefits

Cabinet

- Air moves across the ceiling in both directions providing even air distribution throughout the cooler
- Compact, ceiling mount and center mount design allows for shelving and storage of product around all walls
- Heavy-gauge grained aluminum cabinet cleans easily and looks attractive
- Stainless steel screws prevent rust streaks
- Panels on ends quickly remove for complete access to refrigerant components and electrical terminal block during installation and servicing
- Quick disconnect, waterproof plug and receptacle for each motor in all models
- Wire fan guards with PVC coating for durability

Coil

- High-efficiency aluminum fins with full collars cover mechanically expanded copper tubes
- Coils are dehydrated and sealed at the factory
- Highest quality tubular heaters provide fast and economical defrost
- Generous coil surface gives proper compressor balance
- Standard adjustable defrost termination fan delay thermostat

Drain Pan

- Double drain pan eliminates drain pan sweating
- Tapered mounting provides proper slope for condensate drainage to one end of the unit

Motors

- Motors are life lubricated and thermal overload protected
- EC motors (optional) available factory-installed or as a drop-in replacement through InterLink™ Commercial Refrigeration Parts in 115/1/60, 208-230/1/60 voltages.

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.

Additional Options

- Factory installed mounted components are available in these configurations:
 - Pre-assembled units come with mounted TXV, liquid line solenoid valve and room thermostat
 - Pre-charged units come with mounted TXV, liquid line solenoid valve, room thermostat, and quick connect fittings
 - Mounted TXV
 - Mounted TXV and solenoid valve
 - Mounted room thermostat
- Most models available with glycol circuiting (see glycol product brochure)
- 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

PERFORMANCE DATA

Model SM Air Defrost | 60 Hz

Model	Capacity								Fan Data		
	R-404A				R-407A/C/F, R-448A/R-449A				No.	CFM	m ³ H
	10°F TD 25°F SST	6°C TD 4°C SST	15°F TD 25°F SST	8°C TD 4°C SST	10°F TD 25°F SST	6°C TD 4°C SST	15°F TD 25°F SST	8°C TD 4°C SST			
	BTUH	Watts	BTUH	Watts	BTUH	Watts	BTUH	Watts			
ACM052	5,200	1,500	7,800	2,250	6,000	1,800	9,000	2,700	1	610	1,035
ACM076	7,600	2,200	11,400	3,300	8,700	2,500	13,050	3,750	2	1,300	2,210
ACM090	9,000	2,600	13,500	3,900	10,100	3,000	15,150	4,500	2	1,260	2,140
ACM102	10,200	3,000	15,300	4,500	11,800	3,500	17,700	5,250	2	1,220	2,075
ACM108	10,800	3,200	16,200	4,800	12,600	3,700	18,900	5,550	3	1,950	3,315
ACM134	13,400	3,900	20,100	5,850	15,300	4,500	22,950	6,750	3	1,890	3,210
ACM156	15,600	4,600	23,400	6,900	18,100	5,300	27,150	7,950	3	1,830	3,110
ACM179	17,900	5,200	26,850	7,800	20,400	6,000	30,600	9,000	4	2,520	4,285
ACM208	20,800	6,100	31,200	9,150	24,100	7,100	36,150	10,650	4	2,440	4,145
ACM249	24,900	7,300	37,350	10,950	28,900	8,500	43,350	12,750	5	3,050	5,185

Model SM Air Defrost | 50 Hz[†]

Model	Capacity								Fan Data		
	R-404A				R-407A/C/F, R-448A/R-449A				No.	CFM	m ³ H
	10°F TD 25°F SST	6°C TD -4°C SST	15°F TD 25°F SST	8°C TD -4°C SST	10°F TD 25°F SST	6°C TD -4°C SST	15°F TD 25°F SST	8°C TD 4°C SST			
	BTUH	Watts	BTUH	Watts	BTUH	Watts	BTUH	Watts			
ACM052	4,950	1,450	7,410	2,170	5,742	1,700	8,613	2,550	1	550	935
ACM076	7,220	2,110	9,880	2,890	8,375	2,500	12,563	3,750	2	1,170	1,990
ACM090	8,550	2,500	12,830	3,760	9,918	2,900	14,877	4,350	2	1,135	1,930
ACM102	9,690	2,840	14,540	4,260	11,240	3,300	16,861	4,950	2	1,100	1,865
ACM108	10,260	3,000	15,390	4,510	11,902	3,500	17,852	5,250	3	1,755	2,985
ACM134	12,730	3,730	17,420	5,100	14,767	4,300	22,150	6,450	3	1,700	2,890
ACM156	14,820	4,340	22,230	6,510	17,191	5,000	25,787	7,500	3	1,650	2,800
ACM179	17,010	7,980	23,290	6,820	19,732	5,800	29,597	8,700	4	2,270	3,855
ACM208	19,760	5,790	29,640	8,680	22,922	6,700	34,382	10,050	4	2,200	3,735
ACM249	23,660	6,930	32,400	9,490	27,446	8,000	41,168	12,000	5	2,745	4,665

Model SME Electric Defrost | 60 Hz

Model	Capacity								Fan Data		
	R-404A				R-407A/C/F, R-448A/R-449A				No.	CFM	m ³ H
	10°F TD -20°F SST	6°C TD -29°C SST	12°F TD -20°F SST	7°C TD -29°C SST	10°F TD -20°F SST	6°C TD -29°C SST	12°F TD -20°F SST	7°C TD -29°C SST			
	BTUH	Watts	BTUH	Watts	BTUH	Watts	BTUH	Watts			
ECM040	4,000	1,170	4,800	1,410	4,400	1,290	5,280	1,550	1	610	1,035
ECM054	5,400	1,580	6,480	1,900	5,900	1,730	7,080	2,080	2	1,300	2,210
ECM065	6,500	1,900	7,800	2,280	7,100	2,080	8,520	2,500	2	1,260	2,140
ECM090	9,000	2,640	10,800	3,160	9,900	2,900	11,880	3,480	3	1,220	2,075
ECM130	13,000	3,810	15,600	4,570	14,300	4,190	17,160	5,030	3	1,950	3,315
ECM174	17,400	5,100	20,880	6,120	19,500	5,720	23,400	6,860	4	1,890	3,210

Model SME Electric Defrost | 50 Hz[†]

Model	Capacity								Fan Data		
	R-404A				R-407A/C/F, R-448A/R-449A				No.	CFM	m ³ H
	10°F TD -20°F SST	6°C TD -29°C SST	12°F TD -20°F SST	7°C TD -29°C SST	10°F TD -20°F SST	6°C TD -29°C SST	12°F TD -20°F SST	7°C TD -29°C SST			
	BTUH	Watts	BTUH	Watts	BTUH	Watts	BTUH	Watts			
ECM040	3,800	1,110	4,560	1,340	4,408	1,292	5,290	1,550	1	550	993
ECM054	5,130	1,500	6,160	1,890	5,951	1,745	7,141	2,080	2	1,170	1,989
ECM065	6,180	1,810	7,410	2,170	7,169	2,080	8,603	2,500	2	1,135	1,928
ECM090	8,550	2,500	10,260	3,000	9,918	2,900	11,902	3,480	3	1,755	2,983
ECM130	12,350	3,620	14,820	4,340	14,326	4,190	17,191	5,030	3	1,650	2,800
ECM174	16,530	4,840	19,840	5,810	19,175	5,720	23,010	6,746	4	2,200	3,733

[†] 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

Model ACM Air Defrost | 60 Hz

Model	HP	PSC Motor				EC Motor			
		115/1/60		208-230/1/60		115/1/60		208-230/1/60	
		Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
ACM052	1/15	0.9	90	0.5	90	0.9	55	0.5	55
ACM076	1/15	1.8	180	1.0	180	1.8	110	1.0	110
ACM090	1/15	1.8	180	1.0	180	1.8	110	1.0	110
ACM102	1/15	1.8	180	1.0	180	1.8	110	1.0	110
ACM108	1/15	2.7	270	1.5	270	2.7	165	1.5	165
ACM134	1/15	2.7	270	1.5	270	2.7	165	1.5	165
ACM156	1/15	2.7	270	1.5	270	2.7	165	1.5	165
ACM179	1/15	3.6	360	2.0	360	3.6	220	2.0	220
ACM208	1/15	3.6	360	2.0	360	3.6	220	2.0	220
ACM249	1/15	4.5	450	2.5	450	4.5	275	2.5	275

Model ACM Air Defrost | 50 Hz[†]

Model	HP	PSC Motor				EC Motor			
		110/1/50		220/1/50		110/1/50		220/1/50	
		Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
ACM052	1/15	0.8	80	0.4	80	0.9	55	0.5	55
ACM076	1/15	1.7	160	0.8	160	1.8	110	1.0	110
ACM090	1/15	1.7	160	0.8	160	1.8	110	1.0	110
ACM102	1/15	2.5	240	1.2	240	1.8	110	1.0	110
ACM108	1/15	2.5	240	1.2	240	2.7	165	1.5	165
ACM134	1/15	2.5	240	1.2	240	2.7	165	1.5	165
ACM156	1/15	3.3	320	1.6	320	2.7	165	1.5	165
ACM179	1/15	3.3	320	1.6	320	3.6	220	2.0	220
ACM208	1/15	3.3	320	1.6	320	3.6	220	2.0	220
ACM249	1/15	4.2	400	2.0	400	4.5	275	2.5	275

Model ECM Electric Defrost | 60 Hz

Model	HP	PSC Motor		EC Motor		Heaters	
		208-230/1/60		208-230/1/60		208-230/1/60	
		Amps	Watts	Amps	Watts	Amps	Watts
ECM040	1/15	0.5	90	0.5	55	5.3	1200
ECM054	1/15	1.0	180	1.0	110	8.7	2000
ECM065	1/15	1.0	180	1.0	110	8.7	2000
ECM090	1/15	1.5	270	1.5	165	10.5	2400
ECM130	1/15	1.5	270	1.5	165	15.7	3600
ECM174	1/15	2.0	360	2.0	220	20.9	4800

Model ECM Electric Defrost | 50 Hz[†]

Model	HP	PSC Motor		EC Motor		Heaters	
		220/1/50		220/1/50		220/1/50	
		Amps	Watts	Amps	Watts	Amps	Watts
ECM040	1/15	0.4	80	0.5	55	5.0	1100
ECM054	1/15	0.8	160	1.0	110	8.3	1826
ECM065	1/15	0.8	160	1.0	110	8.3	1826
ECM090	1/15	1.2	240	1.5	165	10.0	2200
ECM130	1/15	1.2	240	1.5	165	15.0	3300
ECM174	1/15	1.6	320	2.0	220	20.0	4400

PHYSICAL DATA

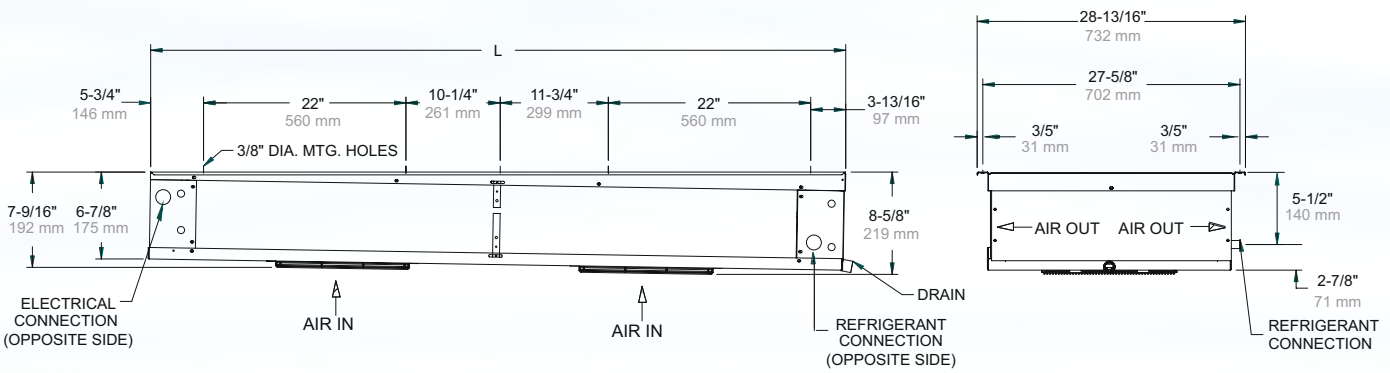
Model ACM Air Defrost

Model	No. of Fans	Connections (in.)		Approx. Net Wt.	
		Inlet OD	Suction OD	lbs.	kg
ACM052	1	1/2	7/8	42	19
ACM076	2	1/2	7/8	64	29
ACM090	2	1/2	7/8	70	32
ACM102	2	1/2	7/8	83	38
ACM108	3	1/2	7/8	105	48
ACM134	3	1/2	7/8	117	53
ACM156	3	1/2	7/8	123	56
ACM179	4	1/2	7/8	149	68
ACM208	4	1/2	1-1/8	164	74
ACM249	5	1/2	1-1/8	206	94

Model ECM Electric Defrost

Model	No. of Fans	Connections (in.)		Approx. Net Wt.	
		Inlet OD	Suction OD	lbs.	kg
ECM040	1	1/2	7/8	90	41
ECM054	2	1/2	7/8	120	54
ECM065	2	1/2	7/8	120	54
ECM090	3	1/2	7/8	160	73
ECM130	3	1/2	7/8	174	79
ECM174	4	1/2	1-1/8	218	99

Dimensional Data



NOTE: All units have 1/4" OD external equalizer and 3/4" FPT drain connection

Model ACM Air Defrost

Model	No. of Fans	Dimensions	
		L	
		in.	mm
ACM052	1	31-1/2	800
ACM076	2	53-1/2	1359
ACM090	2	53-1/2	1359
ACM102	2	53-1/2	1359
ACM108	3	75-1/2	1918
ACM134	3	75-1/2	1918
ACM156	3	75-1/2	1918
ACM179	4	97-1/2	2477
ACM208	4	97 1/2	2477
ACM249	5	119-1/2	3035

Model ECM Electric Defrost

Model	No. of Fans	Dimensions	
		L	
		in.	mm
ECM040	1	31-1/2	800
ECM054	2	53-1/2	1359
ECM065	2	53-1/2	1359
ECM090	3	75-1/2	1918
ECM130	3	75-1/2	1918
ECM174	4	97-1/2	2477

Right source. Right parts. Right now.

InterLink™ is your link to a complete line of dependable and certified commercial refrigeration parts, accessories and innovative electronic controls for all Larkin equipment. At InterLink, we provide our wholesalers with a comprehensive selection of product solutions and innovative technologies for the installed customer base. And every product is built to ensure the same high performance standards with which all Heatcraft Refrigeration Products (HRP) brands are built — backed by a dedicated team to serve every customer need, delivering at the best lead times in the industry.

Dependable. Versatile. Courteous.

Finally, one simple source for all your replacement needs from a name you can trust.

For parts, please contact (800) 686-7278 or visit heatcraftprd.com.

Motor/Fan Blade/Fan Guards

Part #	Description	No. Fans
5036NS	Motor 115/1/60/50 PSC	1 - 5
5036PS	Motor 208-230/1/60/50 PSC	1 - 5
25317901	Motor 208-230/1/60 EC Totally Enclosed	1 - 5
25318001	Motor 115/1/60 EC Totally Enclosed	1 - 5
5110E	Fan Blade	1 - 5
5055F	Fan Guard - Wire	1 - 5
40003001	Motor Mount Plate	1 - 5

Standard Nozzle Selection

Model ACM Air Defrost

Model	No. of Fans	Distributor Tube (in.)		No. of Circuits	R-404A, R-507A Nozzle	R-407A, R-407F, R-407C Nozzle	R-448A, R-449A Nozzle	R-22 Nozzle*
		OD	Length					
ACM052	1	3/16	18	2	L-1/3	L-1/3	L-1/2	L-1/4
ACM076	2	3/16	18	2	L-1/2	L-1/2	L-3/4	L-1/3
ACM090	2	3/16	18	4	L-3/4	L-3/4	L-1	L-1/2
ACM102	2	3/16	18	4	L-3/4	L-3/4	L-1	L-1/2
ACM108	3	3/16	18	4	L-3/4	L-3/4	L-1	L-1/2
ACM134	3	3/16	18	4	L-1	L-1	L-1-1/2	L-3/4
ACM156	3	3/16	18	6	L-1	L-1	L-1-1/2	L-3/4
ACM179	4	3/16	18	6	L-1-1/2	L-1-1/2	L-2	L-1
ACM208	4	3/16	18	6	L-1-1/2	L-1-1/2	L-2	L-1
ACM249	5	3/16	18	6	L-2	L-2	L-2-1/2	L-1-1/2

Model ECM Electric Defrost

Model	No. of Fans	Distributor Tube (in.)		No. of Circuits	R-404A, R-507A Nozzle	R-407A, R-407F, R-407C Nozzle	R-448A, R-449A Nozzle	R-22 Nozzle*
		OD	Length					
ECM040	1	3/16	18	2	L-1/2	L-1/2	L-3/4	L-1/3
ECM054	2	3/16	18	2	L-3/4	L-1/2	L-3/4	L-1/2
ECM065	2	3/16	18	4	L-3/4	L-3/4	L-1	L-1/2
ECM090	3	3/16	18	4	L-1	L-1	L-1-1/2	L-3/4
ECM130	3	3/16	18	6	L-1-1/2	L-1-1/2	L-2	L-1
ECM174	4	3/16	18	6	L-2	L-2	L-2-1/2	L-1-1/2

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

Cabinet Components

Part #	Description	No. Fans
C26363A2	Drain Pan - Stucco	1
C26360A2	Drain Pan - Stucco	2
C26361A2	Drain Pan - Stucco	3
C26362A2	Drain Pan - Stucco	4
40820301	Drain Pan - Stucco	5
40820601	Drain Pan - White	1
40820701	Drain Pan - White	2
C26361A4	Drain Pan - White	3
C26362A4	Drain Pan - White	4
D20817A4	Drain Pan - White	5

Electrical Components

Part #	Description
22512601	Terminal Board
4267W	Defrost Termination / Fan Delay Thermostat
4550G	Filter (optional one per fan)

Electric Defrost

Part #	Description	Model	No. Fans
4400S	Coil Heater	040	1
4401S	Coil Heater	054, 065	2
4402S	Coil Heater	090	3
4403S	Coil Heater	130	3
4404S	Coil Heater	174	4

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)
- Electric defrost models with a saturated suction temperature of 10°F or higher

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



2175 West Park Place Blvd. · Stone Mountain, GA 30087
Phone: 800.537.7775 · Fax: 770.465.5900
heatcraftprd.com

For more information on Larkin refrigeration products, contact your Sales Representative or visit us at heatcraftprd.com.



Since product improvement is a continuing effort, we reserve the right to make changes in specifications without notice.

LK-CMTB-0818 | Version 001