

Service Bulletin

Subject: UP0190 Technical Specifications

AIR-COOLED MODELS

GENERAL SPECIFICATIONS			
Operating Temperatures	Minimum 50°F (10°C) Maximum 100°F (38°C)		
Refrigerant Charge (R-290)	4.9 oz (140 g)		
Ice Making Water Inlet	Connection Size - 3/8" FPT (Female Pipe Thread)	Water Temperature - Minimum 40°F (4.4°C) Maximum 90°F (32°C)	Water Pressure - Minimum 20 psig (1.3 bar) Maximum 80 psig (5.5 bar)
Ice Making Water Drain	Connection Size - 1/2" FPT (Female Pipe Thread)		
Potable Water	15.5 gallons per 100 lbs of ice 58.67 liters per 45.5 kg of ice		
Electrical	115V/60Hz/1Ph	230V/50Hz/1Ph	Energy Usage Kwh / 100 lbs Half Dice: 5.83 Kwh Dice: 5.83 Kwh
	Min Circuit Amps - 6.0 Max Fuse Size - 15 amp	Min Circuit Amps - 2.5 Max Fuse Size - 15 amp	
Compressor Nominal Rating	115V/60Hz/1Ph	230V/50Hz/1Ph	
	1/2 HP	1/3 HP	
Heat of Rejection	Air Conditioning 3,200 BTU/hr (806 kcal/hr)	Peak 3,800 BTU/hr (958 kcal/hr)	
Fan Cycle Control	Cut-in - 200 psig (14 bar)	Cut-out - 150 psig (10 bar)	
High Pressure Settings	Cut-in - 250 psig (17 bar)	Cut-out - 350 psig (24 bar)	
Dimensions	Height	Width	Depth
	38.5 in (980 mm)	26.0 in (660 mm)	28.5 in (725 mm)
Clearances	Top	Side	Back
	5.0 in (130 mm)	5.0 in (130 mm)	5.0 in (127 mm)

Self Contained Air-cooled Ice Machines

Cycle Times

Freeze Time + Harvest Time = Total Cycle Time

Air Temperature Around the Unit	Freeze Time (Minutes)			Harvest Time
	Water Temperature			
	50°F 10°C	70°F 21°C	90°F 32°C	
70°F 21°C	13.9-16.0	16.9-18.9	18.0-20.3	1.0-2.5
80°F 27°C	15.0-17.2	17.0-20.1	19.4-22.4	
90°F 32°C	16.2-18.5	19.5-22.5	21.6-25.0	
100°F 38°C	19.0-21.5	20.4-24.0	23.4-26.5	
110°F 43°C	21.6-24.6	23.6-26.6	24.5-27.7	
Cycle times and pressures vary with operating condition. Production and cycle times are for dice cube - Half dice cube cycle times can be 2 - 3 minutes faster, depending on water and ambient temperature				

24 Hour Ice Production

Air Temperature Around the Unit	Water Temperature		
	50°F 10°C	70°F 21°C	90°F 32°C
70°F 21°C	200 lbs 91 kgs	165 lbs 75 kgs	155 lbs 70 kgs
80°F 27°C	165 lbs 75 kgs	150 lbs 68 kgs	135 lbs 61 kgs
90°F 32°C	150 lbs 68 kgs	140 lbs 64 kgs	115 lbs 52 kgs
100°F 38°C	130 lbs 59 kgs	115 lbs 52 kgs	105 lbs 48 kgs
110°F 43°C	115 lbs 52 kgs	105 lbs 48 kgs	100 lbs 45 kgs
Ice slab weight of one harvest cycle = 2.3 lbs to 2.9 lbs (1.0 kgs to 1.3 kgs).			

Operating Pressures - Freeze Cycle

Air Temperature Around the Unit	Discharge Pressure	Suction Pressure
50°F 10°C	130-210 psig 9.0-14.5 bar	50-21 psig 3.4-1.4 bar
70°F 21°C	150-210 psig 10.3-14.5 bar	53-23 psig 3.7-1.6 bar
80°F 27°C	160-230 psig 11.0-15.9 bar	55-23 psig 3.8-1.6 bar
90°F 32°C	195-260 psig 13.4-17.9 bar	60-24 psig 4.1-1.7 bar
100°F 38°C	200-280 psig 13.8-19.3 bar	65-25 psig 4.5-1.7 bar
110°F 43°C	245-295 psig 16.9-20.3 bar	67-27 psig 4.6-1.9 bar

Operating Pressures - Harvest Cycle

Air Temperature Around the Unit	Discharge Pressure	Suction Pressure
50°F 10°C	80-110 psig 5.5-7.6 bar	68-72 psig 4.7-5.0 bar
70°F 21°C	85-115 psig 5.9-7.9 bar	70-80 psig 4.8-5.5 bar
80°F 27°C	95-120 psig 6.6-8.3 bar	70-85 psig 4.8-5.9 bar
90°F 32°C	115-170 psig 7.9-11.7 bar	80-95 psig 5.5-6.6 bar
100°F 38°C	120-175 psig 8.3-12.1 bar	70-105 psig 4.8-7.2 bar
110°F 43°C	120-180 psig 8.3-12.4 bar	95-115 psig 6.6-7.9 bar

Storage Capacity

Storage Bin Capacity*
90 lbs (40 kg)
*Storage Capacity is AHRI certified.

NOTE: Ice Production Derate %

- 60Hz Dice and Half Dice production derate as shown
- 60Hz Regular cube production derate is 7%.
- 50Hz Dice and Half Dice production derate is 12%.
- 50Hz Regular cube production derate is 14%.