



# Air and Water-Cooled Pre-Charged Refrigeration Systems

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Products that provide lasting solutions.

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AIR AND WATER-COOLED PRE-CHARGED REFRIGERATION SYSTEMS

Specifications subject to change without notice.

#### Features and Benefits

Krack microDS<sup>™</sup> Monoblock top-mounted refrigeration systems combine all the benefits of an evaporator and a condensing unit into a single packaged system. Designed to reduce installation time and refrigerant costs, the Monoblock maximizes storage space in a cold room unit cooler or freezer and is ideal for small and medium-sized food service, convenience store, and light industrial applications. The removal of heat from the high temperature side (condensing) occurs with a water pumping mechanism, interconnections, and external heat exchange system (water loop - not part of product).

The Krack microSC<sup>™</sup> system works by removing heat from the high temperature side (condensing) with air-cooled condensers and high efficiency fans. The exhaust warm air is rejected to the backroom. The sytems are fully assembled, charged, tested, and wired at the factory with no extra components required.

#### EASE OF INSTALLATION

- Pre-charged with propane refrigerant
- No refrigerant piping required at installation site
- Units pre-programmed with Dixell controller and digital display

#### **ENERGY EFFICIENCY**

- Energy efficient EC motors
- Hot gas defrost with heated pan
- Variable Capacity Compressor (VCC)

#### ENVIRONMENTAL ADVANTAGE

 Propane (R-290) has a Global Warming Potential (GWP) value of 3 and Ozone Depleting Potential (ODP) of zero meeting CARB and US Climate Alliance requirements

#### CONTROLS

- The Krack Monoblock leverages a Dixell XWi70K control with frequency signal to control the variable speed of compressors

#### PROPANE **ECO-FRIENDLY** REFRIGERANT FUTURE-PROOF Is a natural. non-toxic. • Monoblock units are charged with • The EPA lists propane as an environmentally up to 150 grams (5.3 ounces) of acceptable refrigerant substitute friendly refrigerant propane per circuit under its Significant New Alternatives Policy (SNAP) • Propane has a tiny Global • Reduces the full store refrigerant Warming Potential (GWP) charge by 90-95 percent vs. stores • Propane is exempted from the rating of 3, compared to an using HFC refrigerants venting prohibition in the Clean average HFC refrigerant, Air Act (Section 608) Produced specifically for which has a GWP rating refrigeration and is different greater than 1,300 than propane used for outdoor • Propane has an Ozone grilling Depletion Potential (ODP) of **zero**

Why Use Natural Refrigerant Solutions?



The microDS Monoblock refrigeration system meets CARB and US Climate Alliance requirements.

### Airflow Design



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### Air-Cooled Performance Data

	MEDIUM TEMPERATURE											
microSC™												
	28°F BOX TEMPERATURE 35°F BOX TEMPERATURE 40°F BOX TEMPERATURE 50°F BOX TEMPERATURE									RATURE		
Ambient Inlet Temp (°F)	Capacity (BTU/H)	Power (kW)	Heat of Rejection (BTU/H)	Capacity (BTU/H)	Power (kW)	Heat of Rejection (BTU/H)	Capacity (BTU/H)	Power (kW)	Heat of Rejection (BTU/H)	Capacity (BTU/H)	Power (kW)	Heat of Rejection (BTU/H)
70	11,470	1.72	17,350	12,640	1.81	18,817	13,334	1.86	19,676	15,135	2.02	22,025
75	11,194	1.75	17,158	12,294	1.83	18,545	12,996	1.89	19,439	14,683	2.03	21,606
80	10,919	1.77	16,966	11,948	1.85	18,273	12,659	1.92	19,203	14,231	2.04	21,187
85	10,643	1.80	16,775	11,601	1.87	18,001	12,322	1.95	18,966	13,780	2.05	20,768
90	10,368	1.82	16,583	11,255	1.90	17,729	11,984	1.98	18,730	13,328	2.06	20,349
95	10,093	1.85	16,391	10,909	1.92	17,457	11,647	2.01	18,494	12,876	2.07	19,930

### Water-Cooled Performance Data

	MEDIUM TEMPERATURE											
microDS™												
	28°F BOX TEMPERATURE 35°F BOX TEMPERATURE 40°F BOX TEMPERATURE 50°F BOX TEMPERATURE										RATURE	
Inlet Water Temp (°F)	Capacity (BTU/H)	Power (kW)	Heat of Rejection (BTU/H)	Capacity (BTU/H)	Power (kW)	Heat of Rejection (BTU/H)	Capacity (BTU/H)	Power (kW)	Heat of Rejection (BTU/H)	Capacity (BTU/H)	Power (kW)	Heat of Rejection (BTU/H)
50	11,829	1.41	16,649	12,084	1.35	16,703	13,851	1.50	18,976	15,536	1.58	20,916
60	11,392	1.47	16,410	11,664	1.42	16,518	13,269	1.56	18,581	14,832	1.63	20,391
70	10,955	1.53	16,171	11,244	1.49	16,333	12,686	1.61	18,187	14,129	1.68	19,867
80	10,519	1.59	15,932	10,824	1.56	16,149	12,104	1.67	17,792	13,425	1.73	19,343
90	10,082	1.64	15,693	10,403	1.63	15,964	11,522	1.72	17,398	12,722	1.79	18,818
100	9,645	1.70	15,454	9,983	1.70	15,779	10,940	1.78	17,003	12,019	1.84	18,294
110	9,208	1.76	15,215	9,563	1.77	15,594	10,357	1.83	16,609	11,315	1.89	17,770
115	8,990	1.79	15,096	9,353	1.80	15,502	10,066	1.86	16,411	10,963	1.92	17,508

OW TEMPERATURE

microDS												
-15°F BOX TEMPERATURE			-10°F BOX TEMPERATURE			-5°F BOX TEMPERATURE			5°F BOX TEMPERATURE			
Inlet Water Temp (°F)	Capacity (BTU/H)	Power (kW)	Heat of Rejection (BTU/H)									
50	5,017	0.90	8,076	5,627	0.94	8,846	5,954	1.10	9,709	7,707	1.21	11,826
60	4,863	0.93	8,031	5,435	0.98	8,780	5,754	1.14	9,638	7,407	1.25	11,663
70	4,709	0.96	7,986	5,242	1.02	8,714	5,554	1.18	9,568	7,107	1.29	11,499
80	4,555	0.99	7,941	5,050	1.05	8,647	5,354	1.21	9,497	6,807	1.33	11,336
90	4,401	1.02	7,896	4,857	1.09	8,581	5,153	1.25	9,427	6,507	1.37	11,172
100	4,246	1.06	7,852	4,665	1.13	8,515	4,953	1.29	9,356	6,207	1.41	11,009
110	4,092	1.09	7,807	4,472	1.17	8,448	4,753	1.33	9,286	5,907	1.45	10,845
115	4,015	1.10	7,784	4,376	1.18	8,415	4,653	1.35	9,251	5,757	1.47	10,763

### Air and Water-Cooled Performance Data

	MEDIUM TE	LOW TEMPERATURE		
	microSC™	microDS <sup>™</sup>	microDS <sup>™</sup>	
MODEL	KM2VA15UGDx	KM2VW15UGDx	KL2VW15UGDx	
ELECTRICAL DATA				
Voltage (Volts / Phase / Hz)	230 / 1 / 50 / 60	230 / 1 / 50 / 60	230 / 1 / 50 / 60	
Power (Watts)	1,925	1,783	1,135	
Unit MCA (Amps)	12	10	12	
Unit MOPD (Amps)	20	15	15	
Compressor RLA / Each (Amps)	3.4	3.4	3.4	
Compressor Power / Each (HP)	1.25	1.25	1.25	
SYSTEM DATA				
Refrigerant	R-290	R-290	R-290	
Charge / Circuit (Grams)	150	150	150	
Number of Circuits	2	2	2	
Total Charge (Grams)	300	300	300	
Approximate Net Weight (LBS)	267	236	236	
	1		1	
HEAT REJECTION DATA				
Inlet Size (NPT)	N/A	3/4"-14NPT	3/4"-14NPT	
Outlet Size (NPT)	N/A	3/4"-14NPT	3/4"-14NPT	
Water Regulating Valve Model	N/A	Caleffi 127151M50	Caleffi 127151M50	
Per Circuit Water Flow (GPM)	N/A	2.2	2.2	
Total Water Flow (GPM)	N/A	4.4	4.4	
Pressure Drop (PSI)	N/A	16	12	
Minimum Ambient Inlet Temp (°F)	70	70	70	
Maximum Ambient Inlet Temp (°F)	95	95	95	
Minimum Water Inlet Temp (°F)	N/A	41	41	
Maximum Water Inlet Temp (°F)	N/A	115	115	
EVAPORATOR				
Fan Quantity	2	2	2	
Fan Power / Fan (Watts)	34	34	34	
Fan RLA @ High Speed / Fan (Amps)	0.46	0.46	0.46	
Airliow High Speed / Fan (CFW)	1,550	1,550	1,550	
Airflow Low Speed / Fan (CFM)	800	800	800	
Airflow Distance (FT)	13	13	13	
Defrost Type	Hot Gas	Hot Gas	Hot Gas	
Detrost initiation / Termination	lime / lemp	Time / Temp	lime / lemp	
Termination Temp ( F)	55	55	55	
Derrost Interval (Hours)	4	4	4	
Drain Connection (NPT)	N/A	3/4"-14NPT	3/4"-14NPT	
CONTROLLER				
Model	Dixel XWi70K	Dixel XWi70K	Dixel XWi70K	

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Specifications subject to change without notice.

### Air and Water-Cooled Dimensions

		LOW TEMPERATURE			
	microSC™	microDS™	microDS <sup>™</sup>		
MODEL	KM2VA15UGDx	KM2VW15UGDx	KL2VW15UGDx		
DIMENSIONS					
L x W x H (Inches) Shipping Weight (LBS / KG) Operating Weight (LBS / KG)	37.4 x 35.3 x 25.0 348 / 158 267 / 121	37.4 x 35.3 x 25.0 317 / 144 242 / 110	37.4 x 35.3 x 25.0 317 / 144 242 / 110		
Shown microDS front and side views Dimensions apply to micro Monoblock models	25.034	i i i i i i i i i i i i i i i i i i i			



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