



PROPANE MONOBLOCK (R-290)

Water-Cooled Pre-Charged Refrigeration System

Technical Bulletin: PCRS_Monoblock_003_061722



Products that provide lasting solutions.

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Features and Benefits

Krack microDS 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 as well as convenient storage facilities.

The systems are fully assembled, charged, tested, and wired at the factory with no extra components required. 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).

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 microDS Monoblock leverages a Dixell XWi70K control with frequency signal to control the variable speed of compressors

Why Use Natural Refrigerant Solutions?

ECO-FRIENDLY

- Is a natural, non-toxic, environmentally friendly refrigerant
- Propane has a tiny Global Warming Potential (GWP) rating of 3, compared to an average HFC refrigerant, which has a GWP rating greater than 1,300
- Propane has an Ozone Depletion Potential (ODP) of **zero**

PROPANE REFRIGERANT

- microDS units are charged with up to 150 grams (5.3 ounces) of propane per circuit
- Reduces the full store refrigerant charge by 90-95 percent vs. stores using HFC refrigerants
- Produced specifically for refrigeration and is different than propane used for outdoor grilling

FUTURE-PROOF

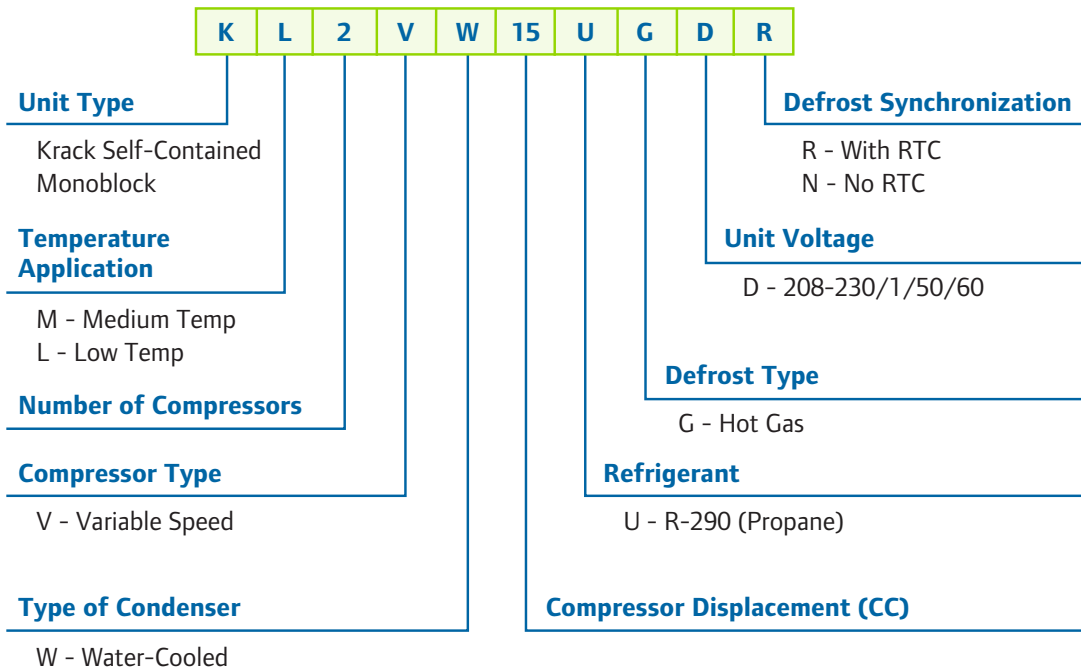
- The EPA lists Propane as an acceptable refrigerant substitute under its Significant New Alternatives Policy (SNAP)
- Propane is exempted from the venting prohibition in the Clean Air Act (Section 608)



microDS™

Krack microDS™ Monoblock

Nomenclature



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

Performance Data

MEDIUM TEMPERATURE

Inlet Water Temp (°F)	28°F BOX TEMPERATURE			35°F BOX TEMPERATURE			40°F BOX TEMPERATURE			50°F BOX TEMPERATURE		
	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

LOW TEMPERATURE

Inlet Water Temp (°F)	-15°F BOX TEMPERATURE			-10°F BOX TEMPERATURE			-5°F BOX TEMPERATURE			5°F BOX TEMPERATURE		
	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	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

Performance Data

ELECTRICAL DATA

	Medium Temperature	Low Temperature
Model	KM2VW15UGDx	KL2VW15UGDx
Voltage (Volts/Phase/Hz)	230/1/50/60	230/1/50/60
Power (Watts)	1,783	1,135
MCA (Amps)	10.4	11
MOPD (Amps)	15	15
Compressor RLA / Each (Amps)	3.4	3.4
Compressor Power / Each (Watts)	1.25	1.25

HEAT REJECTION DATA

	Medium Temperature	Low Temperature
Inlet Size (NPT)	3/4" - 14NPT	3/4" - 14NPT
Outlet Size (NPT)	3/4" - 14NPT	3/4" - 14NPT
Water Regulating Valve Model	Caleffi 127151M50	Caleffi 127151M50
Per Circuit Water Flow (GPM)	2.2	2.2
Total Water Flow (GPM)	4.4	4.4
Pressure Drop (PSI)	16	12
Minimum Water Inlet Temp (°F)	50	50
Maximum Water Inlet Temp (°F)	115	115

EVAPORATOR DATA

	Medium Temperature	Low Temperature
Fan Quantity	2	2
Fan Power / Fan (Watts)	38	38
Fan RLA @ High Speed / Fan (Amps)	0.84	0.84
Airflow High Speed / Fan (CFM)	1,550	1,550
Airflow Low Speed / Fan (CFM)	800	800
Airflow Distance (FT)	13	13
Defrost Type	Hot Gas	Hot Gas
Termination (°F)	55	55
Defrost Interval (Hours)	4	4
Drain Connection (NPT)	3/4" - 14NPT	3/4" - 14NPT

SYSTEM DATA

	Medium Temperature	Low Temperature
Refrigerant	R-290	R-290
Charge / Circuit (Grams)	150	150
Number of Circuits	2	2
Total Charge (Grams)	300	300
Approximate Net Weight (LBS)	250	250

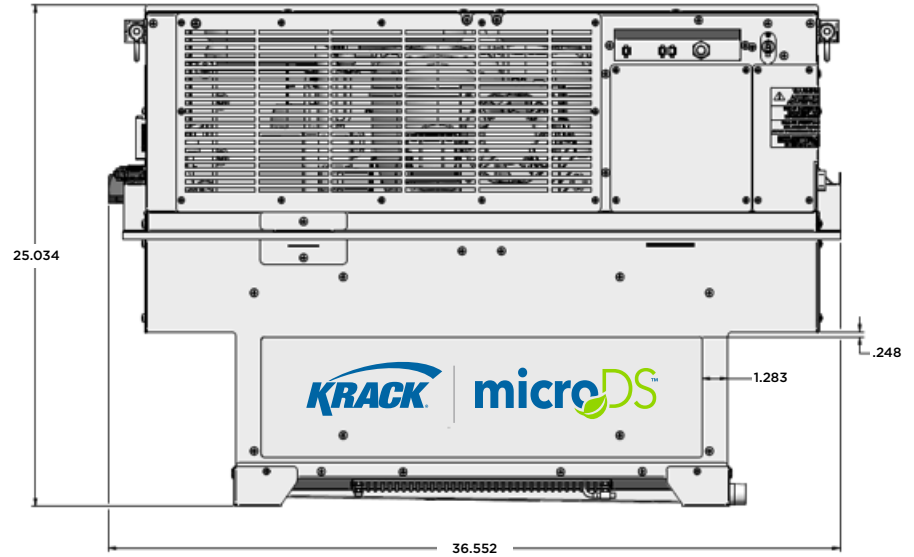
Controller

	Medium Temperature	Low Temperature
Model	Dixell XWi70K	Dixell XWi70K

Dimensional Drawings

KRACK microDS WATER-COOLED UNIT

Front and Side Views



FRONT VIEW



SIDE VIEW



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Krack, a Hussmann Corporation brand

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