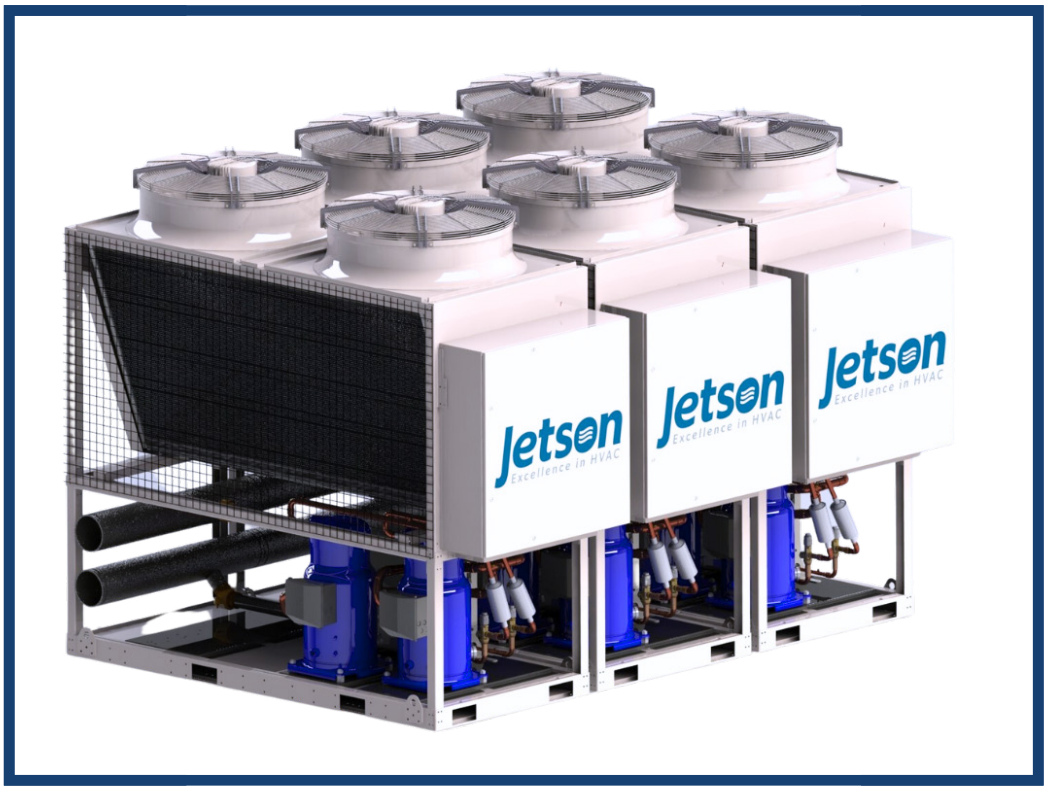
Modular Air-to-Water Chillers (ACC)



Jetson Modular Air-Cooled Chillers offer a compact, modular design ideal for replacements, retrofits, or new construction. Featuring high-efficiency EC motors, low-noise fan blades, and superior redundancy, they ensure quiet operation and enhanced part-load efficiency.

JET17-103

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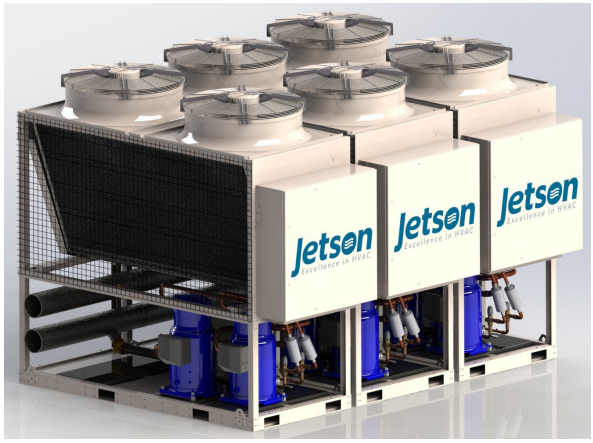
Modular Air-Cooled Chillers

Flexibility of Design

With model sizes ranging from 10 to 90 tons and configurable into arrays up to approximately 800 tons the ACC Series chiller can suit many applications. The installation of small chillers as needed is both more economically practical and energy efficient than a single large centralized chilled water plant, especially at part load and in application where chiller uptime and redundancy are important.

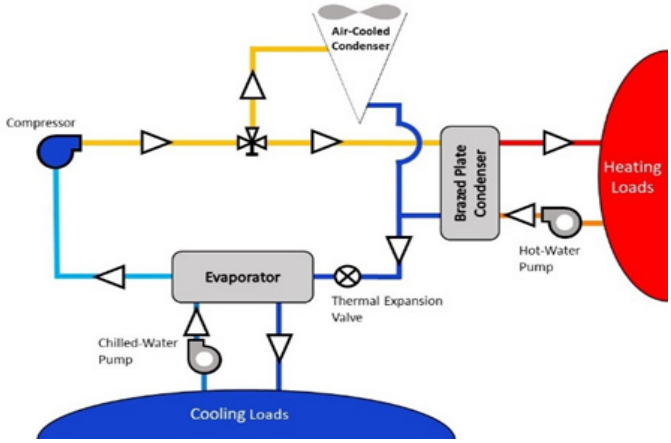


Reliability

The active freeze protection system on ACC chillers continuously monitors the suction temperature to prevent evaporator operation in freezing conditions. When suction pressure approaches freezing conditions the active freeze protection reacts to warm the evaporator.This system helps enhance the longevity of chiller operation and is included on all Jetson chillers. Core temperature sensors are installed in every ACC brazed-plate evaporator as a redundant low water temperature safety.

Heat Recovery Capability (Simultaneous Cooling and Heating)

Heat recovery is designed to capture a portion of the heat that is normally rejected to the air-cooled condenser and put it to beneficial use. With the addition of a heat recovery cycle, heat removed from the building cooling load can be transferred to any heating application. The heat recovery cycle is only possible if a cooling load exists to act as a heat source.



Low GWP Refrigerant

All Jetson air-cooled chillers are available with R-454B refrigerant.Featuring a low Global Warming Potential (GWP) of merely 466 and no Ozone Depletion Potential (ODP), the R-454B refrigerant is classified as an HFO, effectively eliminating ODP and minimizing GWP.

Features & Options

- Can be operated as a single module from 10 to 90 tons.
- Modular capability to install up to ten (10) modules together to reach capacities up to 800 tons.
- Operation from -20°F to 115°F (-29°C to 49°C) ambient temperature as chiller.
- Flexible side-to-side configurations provide footprint flexibility for even challenging installation.
- Dual circuit refrigeration systems for greater operating redundancy.
- Standard scroll on/off compressors or optional variable speed compressors on the lead circuit for a lower turndown.
- Standard uncoated or optional e-coated microchannel heat exchanger (MCHE) condenser coils for a better efficiency and a reduced refrigerant charge.
- Variable speed EC fans for better efficiency.
- Highly efficient, dual circuit brazed plate heat exchangers offer maximum performance at both full and part-load conditions.
- Intuitive, factory installed microprocessor-based controller compatible with BACnet®, Modbus®, and LonTalk®. N+1 or N+2 redundant control logic.
- Heat Recovery capability up to 140°F (60°C) to conserve energy by reusing condenser rejected heat to serve heat loads like boiler loops, reheat coils and more.
- Single point electrical connection for array or separate module electrical feeds provides electrical redundancy.
- Available as an air-cooled condensing unit (ACCU) for pairing with a remote DX brazed plate, and as an air-cooled condenser (ACCR) designed for use with a remote compressor chiller.
- Shipped with R-454B for water-cooled systems or nitrogen holding charge for split systems.
- Integral variable speed pumps available for standalone units and pump skids for array assemblies.
- ASHRAE 90.1 compliant.

Modes of Operation

Cooling: Standard

Heating: Heat Pump capability available

Simultaneous Cooling and Heating: Heat Recovery capability available

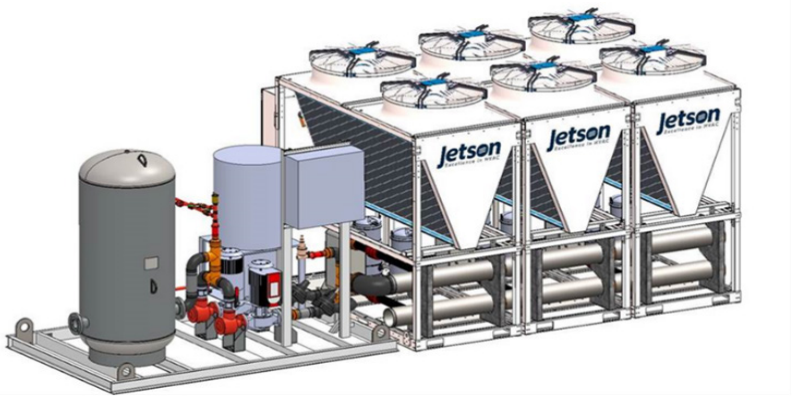
(10-20 ton)

(25-50 ton)

(50HE - 90 ton)

Array Installation (Modular)

Integral pump package for standalone units



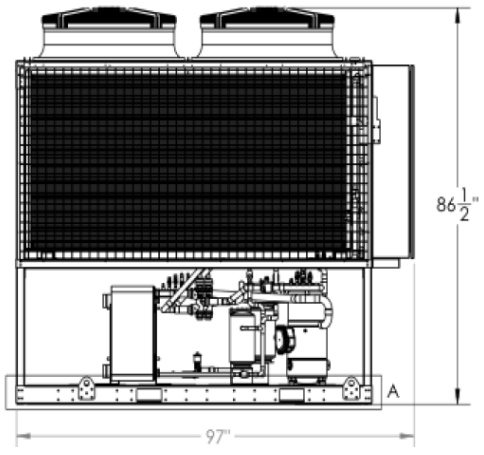
Pump skid for array assemblies

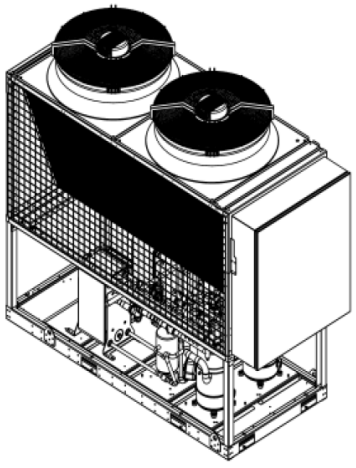
Cooling Mode Performance - Single Module

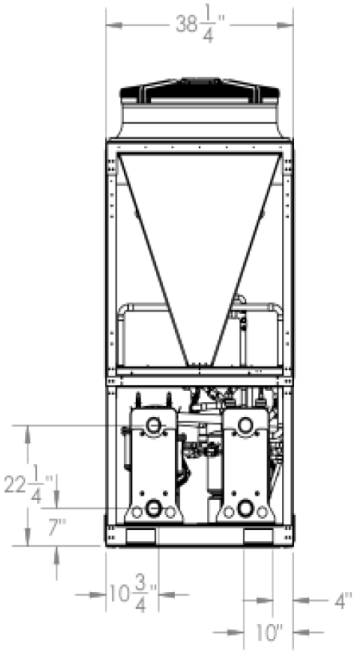
(10 Tons to 90 Tons)

Single Module				ACCS015	ACCS030*	ACCS090
Performance	Cooling	Cooling Capacity	Ton	15.33	24.97	90.38
		Input Power	Kw	15.82	29.81	99.79
		EER	Btu/W*h	11.63	11.86	10.87
		IPLV	Btu/W*h	15.09	14.74	16.39
Compressor		Type		Scroll Single On/Off		Scroll Tandem On/Off
		Quantity	No.	2	2	2
		Circuits	No.	2	2	2
Refrigerant		Type		R-454B		
Air-side Heat Exchanger		Coil Type		Aluminum Microchannel		
		Fan Type		Variable Speed/Fixed Speed		
		Fan Quantity	No.	1/0	1/1	2/2
Water-side Heat Exchanger		Type		Brazed Plate		
		Flow Rate Evaporator	gpm	36.71	70.49	216.26
Electrical		Voltage	V/pH/Hz	460/3/60		
		RLA	Amps	14	25	40
		MCA	Amps	37	65	188
		MOP	Amps	50	80	225
Dimension		Length	Inches	57.3	86.4	86.4
		Width	Inches	39.40	39.40	76.50
		Height	Inches	86.60	86.60	86.60
Weight		Shipping Weight (+/-5%)	lbs	1364	2030	3178

Rated Cooling Performance : EWT/LWT 54°F/44°F @ outdoor air 95°F/87°F(db/wb)
* High Efficient Option
Note : ACCS (stand-alone) units when installed as an array, the model changes to ACCM.
Contact sales@JetsonHVAC.com or your local Jetson representative for a specific performance.







Standalone 30-ton High Efficient chiller

Cooling Mode Performance - Array Configuration

Chiller modules can be combined within the same capacity or with other capacities that use the same frame size.

The maximum array flow rate should be less than 900 GPM.

Array Performance				ACCM015	ACCM030*	ACCM090
Performance	Cooling	Quantity of Modules	No.	4	6	2
		Single Unit Capacity	Ton	15.33	29.47	90.38
		Array Capacity	Ton	61.32	176.80	180.76
		Array EER	Kw	11.63	11.86	10.87
		Array IPLV	Btu/W*h	15.09	14.74	16.39
Array Compressors		Type		Scroll Single On/Off		Scroll Tandem On/Off
		Quantity	No.	8	12	4
		Circuits	No.	8	12	4
Refrigerant		Type		R-454B		
Air-side Heat Exchanger		Coil Type		Aluminum Microchannel		
		Fan Type		Variable Speed/Fixed Speed		
		Array Fan Quantity	No.	4/0	6/6	4/4
Water-Side Heat Exchanger		Type		Brazed Plate		
		Array Flow Rate Evaporator	gpm	146.82	422.95	432.53
Array Electrical		Voltage	V/ph/Hz	460/3/60		
		RLA	Amps	14	25	40
		MCA	Amps	135	359	365
		MOP	Amps	150	400	400
Array Dimension		Length	Inches	160.60	241.40	154.00
		Width	Inches	57.30	86.40	86.40
		Height	Inches	86.60	86.60	86.60
Weight		Shipping Weight (+/-5%)	lbs	5456	12180	6356

Rated Cooling Performance : EWT/LWT 54°F/44°F @ outdoor air 95°F/87°F(db/wb)
* High Efficient Option
Note : ACCS (stand-alone) units when installed as an array, the model changes to ACCM.
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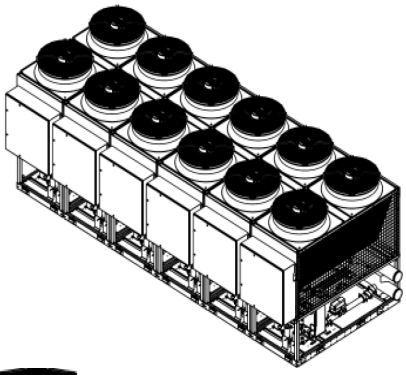

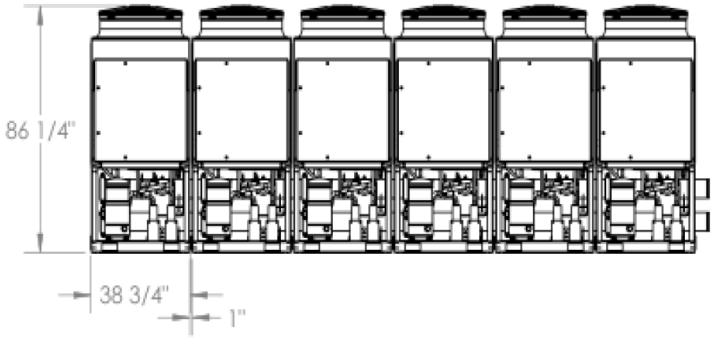

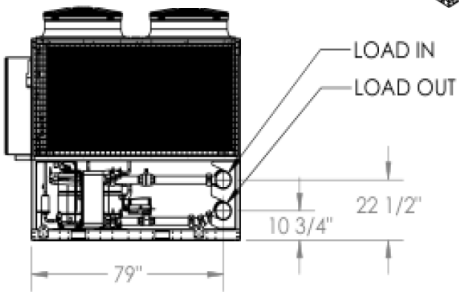

Array of (6) 30-ton High Efficient ACCM chillers:
Nominal 180 tons,12 compressors,12 circuits

Jetson by MODINE

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