HEAT CHAIN

Commercial Water Heating

Heat-Chain™ is a modular, high-efficiency solution for commercial water heating in businesses and multifamily buildings. Built around the HP80 gas absorption heat pump (1.4 CoP / 140% AFUE), it uses natural or LP gas. Available in two skid-mounted models—HC80-2x (160K BTU/hr) and HC80-3x (240K BTU/hr)—Heat-Chain simplifies transport, installation, and scaling. Each skid includes factory-mounted components and consolidated connections for gas, power, condensate, and hydronic fluid.

TECHNICAL DATA	UNIT	HC80-2X	HC80-3X
Heating Output*	BTU/h	156000	234000
CoP (Higher Heating Value)*		1.43	
Max Return Temp (at full fire)	° F/C	132/55.6	
Gas Input (Higher Heating Value)	BTU/h	109000	163500
Modulation (fully variable)		8:1	12:1
Combustion		Condensing	
NOx Compliance (Ultra-Low NOx)	ng/J	<14	
GHP Hydronic Flow (min)	gpm/lpm	7/26.5	
GHP Hydronic Flow (max)	gpm/lpm	10/37.9	
Ambient Temp (min—max)	° F/C	-40 to 130/-40 to 54	
Voltage	VAC	115	
Maximum Current	Amp	14	21
Length	in/cm	86/218.4	138/350.5
Width	in/cm	72/182.9	
Height	in/cm	51/129.5	
Height with Flue	in/cm	63/160	
Weight	lbs/kg	1800/816.5	2500/1134
Hydronic Connection FNPT	in	1-1/2	
Gas Connections MNPT	in	1-1/4	
Condensate Connection, Type B	in	1	
Refrigerant		R717	
CTA2045 Compliance	Future release		
Communications Capabilities	Cellular		
Certification	ETL per ANSI Z21.40.1/CGA 2.91		

- **100% External Control:** Compatible with third-party system controllers for full modulation across units. Ensures balanced runtime—no single HP80 operates more than others.
- **Unified Connectivity:** Units can be grouped together in the Anesi APP for simplified monitoring.
- **Redundant Communication:** Each HP80 retains its own cellular signal—no single point of failure.
- **Simplified Gas Connection:** One 1-1/4" inlet splits to individual HP80 units; sized by skid gas line length.
- **Hydronic Integration:** Single 1.5" inlet/outlet transitions to 1" lines upstream of pumps to maintain even load distribution.
- **Condensate Management:** Individual ⅜" drains merge into 1" PEX-B main line with slope and optional heat trace; skid must be level. Ground clearance 24" to PEX-B connection.
- **Dedicated Pumps:** Each HP80 includes an enclosed hydronic pump (target 8.5 GPM).
- **Skid-Mounted Design:** Entire system on one skid for easy transport, installation, and service access.
- **Optional Electrical Integration:** Pre-wired singlepoint bulkhead connection for power and control to each HP80.

ANESI

*Performance at standard ANSI rating conditions of 47°F ambient, 95°F return

Technical data subject to change

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Intertek

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