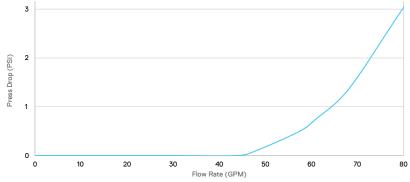
## Commercial Tankless iQ2001, Gen II Submittal Data

Date:	Bid Date:		
Project Name:	Fuel Type:	Natural Gas	Propane
Project #:	Factory Option:	iNTouch-BMS	
City   State   Zip:			
Engineer:			
Contractor:			

	Temperature Rise (ΔT)°F						
	40	50	60	70	80	90	100
Flow (GPM)	96.4	77.1	64.3	55.1	48.2	42.9	38.6



### PRESSURE DROP VS. FLOW RATE



### **KEY FEATURES**

- 8 Weldless 316L Stainless Steel Heat Exchangers with Individual Controls for Masterless Cascading
- · ASME-HLW Compliant | Designed & Built in the U.S.
- Factory monitoring via telliCare messaging.
- Turn Down Ratio 66:1 per Unit, Cascade Up to 3 Units for 200:1 Turndown



## iQ2001 Short Spec & Accessories

The water heater shall be a direct fired tankless, fully condensing, water-tube design. The power burner shall have full modulation. The minimum firing rate shall not exceed 30,000 BTU/HR. The heat exchanger shall be constructed with 316L stainless steel helical water tube and be fully floating with no welded joints. The water heater control system shall incorporate onboard multi-unit sequencing logic that would allow masterless cascading without the need for a master controller. The heat exchangers shall sequence between each other, operating in parallel to meet the load. Each heat exchanger will default to individual control upon failure of the sequencing chain. Changes to operational parameters on any one of the heat exchangers will automatically adjust all other heat exchangers to the most recent parameter change. The water heater shall utilize a low loss header design that utilizes an internal pump and heat exchanger bypass to reduce pressure drop through the vessel.

### **Recommended Accessories iQ2001:**

#### 1. Condensate Neutralizer Kit

This condensate is acidic, with a pH level between 3 and 4. Local building codes apply for an in-line neutralizer to be installed (not included) to treat this water.

2. Outdoor Installation Kit

### 3. iBMS BacNET

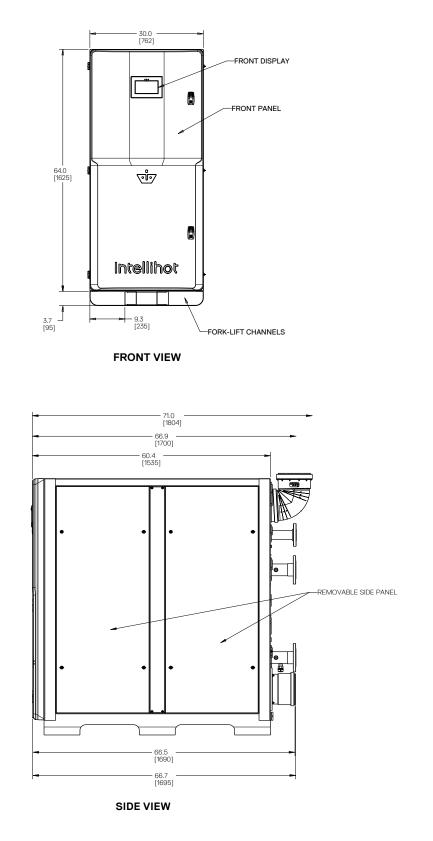
Intellihot's iNTouch BMS has three unique features that are not available in any other BMS in the industry.

- External Pump Power Powers building recirculation.
- Remote Setpoint Allows the temperature to be set remotely via a 0-10 VDC or 4-20mA signal.
- Alarm Buzzes if it detects anything wrong with any of the components it is connected to, and communicates the appropriate error codes so that the user knows which component needs attention.

# iQ2001 Specifications

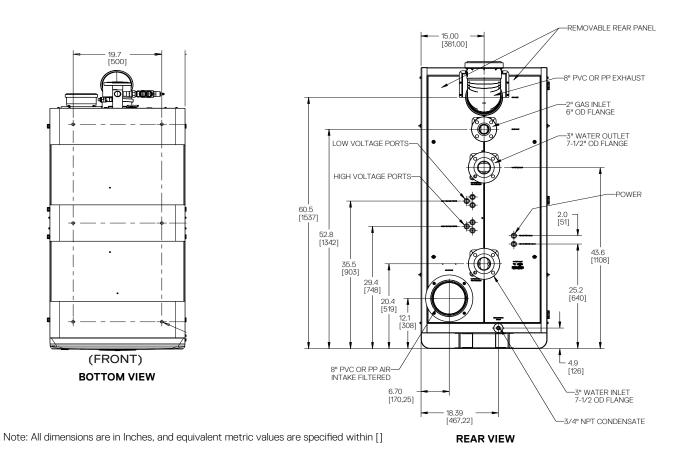
PARAMETERS	MODELS		
	<b>iQ</b> 2001, Gen II		
Туре	Indoor/Outdoor, Floor Mounted, Condensing, Fully Modulating, On-Demand Water Heater		
Fuel	Preset for NG / LP convertible		
Minimum Input (BTU/hr)	30,000		
Maximum Input (BTU/hr)	1,999,999		
Maximum Output (BTU/hr)	1,919,999		
Thermal Efficiency	96%		
Turn Down Ratio (TDR)	66:1		
Water Inlet / Outlet Connections	3" Headers with 7.5" OD Flange		
Gas Inlet Connection	2" Gas Inlet With 6" OD Flange		
Condensate Drain Connection	3/4" Flex PVC		
Maximum Condensate Flow Rate (GPH)	14.4		
Dimensions H X W X D (Inches)	67.7 X 30 X 60.4 (66 CU. FT)		
Service Clearances	Recommend 24" on all sides, 32" in the front		
Weight (LBS)	1225 LBS		
Venting Type	Direct Vent (2 pipe - intake & exhaust), Power Vent (1 pipe - exhaust only)		
Venting Materials (USA)	Sch. 40 PVC, Sch. 80 CPVC, Polypropylene, Stainless Steel (AL29-4C)		
Venting Materials (Canada)	Type BH Gas Vent Classes: II A (PVC), II B (CPVC), II C (Polypropylene), I (AL 29-4C SS)		
Vent Size (Diameter)	8" Ø		
Max Vent Length - Single Pipe / Power Vent*	155 ft (8")		
Max Vent Length - Two Pipe / Direct Vent*	75 ft (8")		
	aximum lengths above, deduct 5 ft. per 90° elbow and 2 ft. per 45° elbow		
Ignition	Electronic Spark Ignition		
Temperature Range	100°F – 190°F		
Temperature Stability	+/- 4°F		
Installation Location Ambient Temperature	40°F – 130°F		
Safety	Flame Rod, Thermal Fuse, Overheat Prevention Device, Fan Speed Monitor, Flue Temperature Moni Blocked Vent Detector, Dual Flame Sensing		
Water Pressure Min / Max (PSIG)	30 / 160		
Pressure Relief Valve (Select BTU/hr Input Rating to Match Model Max Input)	1"		
NG/LP - Min. Dynamic Gas Pressure (Full Fire)	NG = 2.5" WC LP= 8" WC (set Gas regulator to 8" WC for NG 11" WC for LP)		
NG/LP - Maximum Static Gas Pressure	14" WC (set Gas regulator to 8" WC for NG 11" WC for LP)		
Gas Pressure for Adjustments	8" WC for Natural Gas, 11" WC for Propane		
Electrical	(2) 120V AC, 60 Hz		
Power Consumption	(2) Max 20 Amps		
Internal Water Volume (gallons)	8		
Features	<b>iQ</b> 2001, Gen II		
High Turn Down	66:1		
Built-In Redundancy	Multiple Heat Engines w/ Individual Control		
Cascading	Masterless, 3 units, Automatic Rotation		
Common Venting	Yes - up to 3 units		
Heat Exchanger	Expandable, Stainless 316L		
Listing	ETL (Z21.10.3 / CSA 4.3), ASME HLW		
Performance GPM	iQ2001, Gen II		
Hot Water Capacity, 45F Rise (GPM)	85.7		
Hot Water Capacity, 70F Rise (GPM)	55.1		
Hot Water Capacity, 90F Rise (GPM)	42.9		
Hot Water Capacity, 100F Rise (GPM)	38.6		
Hot Water Capacity, 140F Rise (GPM)	27.6		
,	Z7.0		
WARRANTY†	<b>iQ</b> 2001, Gen II		
Basic Warranty (without StartUp)	Hex – 1 Year, Parts – 1 Year, Labor - None		
Enhanced Warranty (with StartUp)	Hex – 10 Years, Parts – 2 Years, Labor - None		

† Heat Exchanger assembly (HEX) does not include, gas valve/blower assembly & sidecast. On 10 year| prorated after year 5. On 6 year| prorated after year 3. telliCare Service is free for one year. Start of warranty is: Per startup report or 2 months from date of manufacture, More specific warranty details can be found in 1/0 Manuals section 18.





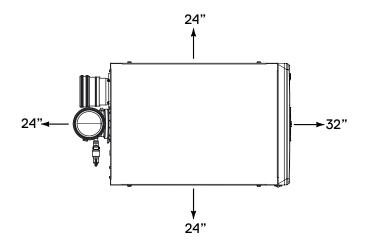
## iQ2001 Dimensional Specifications



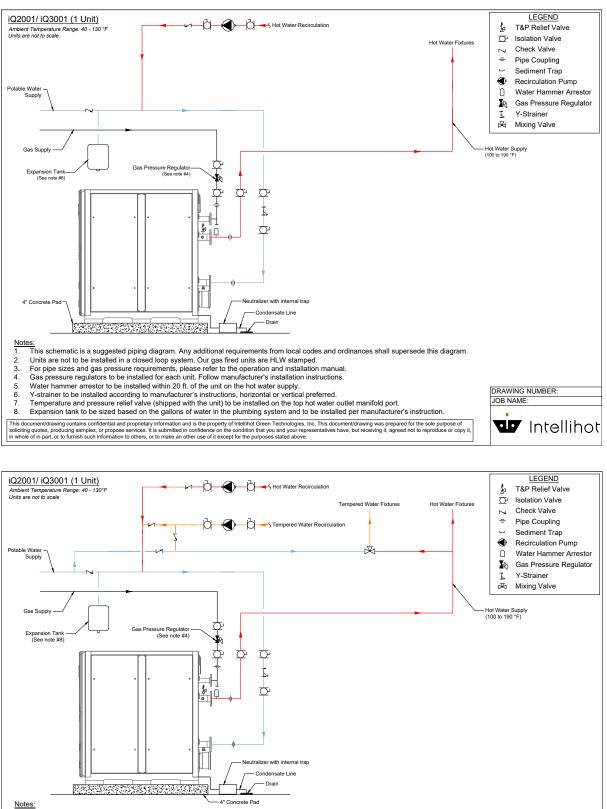
## iQ2001, Gen II Service Clearances

Location	Requ	Recommended	
	From Combustibles	From Non- Combustibles	Service Clearance <sup>1</sup>
Тор	6" (152 mm)	2" (50.8 mm)	18" (457 mm)
Back	5/8" (15.8 mm)	5/8" (15.8 mm)	24" (610 mm)
Sides	1" (25.4 mm)	1/2" (12.7 mm)	24" (610 mm)
Front	2" (51 mm)	2" (50.8 mm)	32" (813 mm)
Bottom	0" (0 mm)	0" (0 mm)	0" (0 mm)

<sup>1</sup> Service clearances are recommended dimensions to allow for normal service of the unit.







Notes: 1. This schematic is a suggested piping diagram. Any additional requirements from local codes and ordinances shall supersede this diagram. 2. This schematic is a suggested piping diagram. Any additional requirements from local codes and ordinances shall supersede this diagram.

Units are not to be installed in a closed loop system. Our gas fired units are HLW stamped. For pipe sizes and gas pressure requirements, please refer to the operation and installation manual. Gas pressure regulators to be installed for each unit. Follow manufacturer's installation instructions.

4

- 5
- Water hammer arrestor to be installed within 20 ft. of the unit on the hot water supply. Mixing Valves, Pumps, Y-strainers, other Valves etc. to be installed according to their manufacturer's instructions. 6

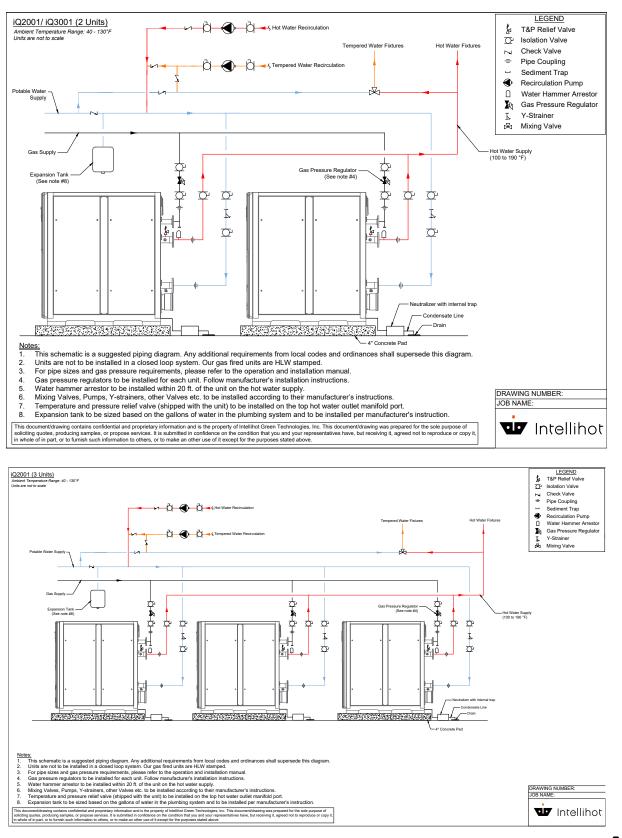
Temperature and pressure relief valve (shipped with the unit) to be installed on the top hot water outlet manifold port. Expansion tank to be sized based on the gallons of water in the plumbing system and to be installed per manufacturer's instruction. 8.

This document/drawing contains confidential and proprietary information and is the property of Intellihot Green Technologies, Inc. This document/drawing was prepared for the sole purpose of soliciting quotes, producing samples, or propose services. It is submitted in confidence on the condition that you and your representatives have, but receiving it, agreed not to reproduce or copy it in whole of In part, or to furnish such information to others, or to make an other use of it except for the purposes stated above.

DRAWING NUMBER: JOB NAME

💵 Intellihot







## iQ2001, Gen II Venting Guidelines

Maximum Pipe Length in Feet					
Number of Units	Venting Type	8" Diameter	10" Diameter	12" Diameter	14" Diameter
		<b>iQ</b> 2001	<b>iQ</b> 2001	<b>iQ</b> 2001	<b>iQ</b> 2001
	1 pipe - PV	155	460	500	500
	2 pipe - DV	75	230	250	250
2	1 pipe - PV	40	130	315	500
2	2 pipe - DV	20	65	155	250
3	1 pipe - PV	-	60	150	320
5	2 pipe - DV	-	30	75	160
DV = Dov	vor Vont				

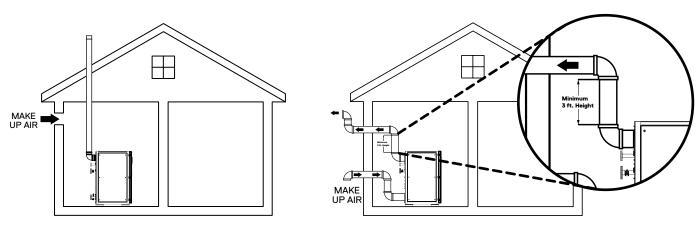
PV = Power Vent

DV = Direct Vent

#### Note:

1. Reduce the maximum equivalent length above by 5 feet per 90° elbow used and by 2 feet per 45° elbow used. Do not exceed the above set limits.

2. SAFETY INSTRUCTIONS: Do not connect any other appliance vents to the water heater inlet or outlet pipes.



1-Pipe Direct Vent

2-Pipe Direct Vent

## iQ2001, Gen II Electrical Data

Electrical power required for the water heater is (2) 120V AC, 60 Hz. The circuit breaker for each circuit (each unit has 2 circuits) shall be sized for a power consumption of 20A (FLA). Larger breakers can be used for multiple units. Please ensure correct polarity of wiring before powering up unit.

## iQ2001, Gen II Cascading Compatibility

Model	Compatible (Max # of Cascaded Units)
iQ2001	Yes (Max 3 Units)
iQ3001	Yes (Max 2 Units)
All other Models (i200, i250, iQ251, iQ251D, iN401, iN501, iQ751, iQ1001 and iQ1501	Not Supported

