iE1 Submittal Data

Date:		Bid Date:	
Project Name:		Factory Option:	☐ Solar
Project #:		Electric Option:	☐ iE1 Std
City | State | Zip:			☐ iE1 Mid
Engineer:			☐ iE1 Max
Contractor:			

Operational Modes	Temperature Rise (ΔT)°F - (80 °F Ambient Temperature)											
	30	40	50	60	70	80	90	100	110	120	130	140
iE1 STD (GPH)	227	170	136	114	97	85	76	68	62	57	52	49
iE1 MID (GPH)	309	232	185	155	132	116	103	93	84	77	71	66
iE1 MAX (GPH)	391	293	235	195	168	147	130	117	107	98	90	84

KEY FEATURES

- No storage, tankless, heats on-demand
- Uses CO_2, GWP of 1
- Suitable for high-pressure multistory buildings
- Handles tough hard water scale
- Produces water up to 170°F

DESIGN FEATURES

- Cellular connectivity with 24/7 factory monitoring
- Automatic software update over the air
- Grid enabled (CTA-2045)
- Wirelessly cascade over Bluetooth up to 6 units
- Can be installed indoors or outdoors
- Compact and lightweight
- Designed and built in the US

OPERATIONAL MODES

- Efficiency
- Hybrid
- Electric
- Self-learning

iE1 Specifications

Technical Data	iE1 Std	iE1 Mid	iE1 Max
Type	Indoor / Outdoor, Floor Mounted		
Power Source	Electric		
Supply Input Voltage	208 V AC, 60 Hz, 1Ph	208 V AC, 60 Hz, 3Ph	
Number of Wires	3 Wires (L1, L2 and G)	5 Wires (L1, L2, L3, N and G)	
Electric Input, kW	3.4	9.4	15.4
Heating Output (BTU/Hr)	Up to 57,000	Up to 77,000	Up to 97,000
Current, FLA (Amps)	16.6	45.4	74.2
Minimum Circuit Ampacity, MCA (Amps)	20.8	49.6	54.1
Minimum Recommended Circuit Breaker	25	50	60
Maximum Overcurrent Protection, MOP (Amps)	35	70	90
Resistive Heating Elements	0	1 (6 kW)	2 (2 x 6 kW)
COP	Up to 4.9 (without Heating Elements)		
Compressor Type	Rotary		
Safety Devices	Pressure Switch, Thermal Cutout, and Overheat Protection		
Ambient Installation Temperature	-10° to 110°F		
Air Flow Requirement	3500 CFM		
Outlet Water Temperature Range	100°F to 170°F		
Temperature Stability	+/- 4°F		
Connectivity	Cellular and Bluetooth		
Operational Modes	Efficiency, Hybrid, Electric, Self-learning		
Grid Connectivity	Via CTA-2045 module (customer supplied)		
Refrigerant	R744, CO2 refrigerant		
Refrigerant Charge Quantity	3.96lbs (1.8 kg)		
Refrigerant Max Allowable Pressure	2175 PSI (15 MPa)		
Cascading Protocol	Masterless, Up to 6 units		
Noise Level	Up to 55 dBA		
Domestic Heat Exchanger	Stainless Steel, 316L		
Energy Storage	Water-Propylene-Glycol based Thermal Battery		
Water Inlet & Outlet Connections	1-1/2" NPT Female		
Unit Dimensions H X W X D	72 in X 30 in X 30 in		
Shipping Weight / Unit Weight	620 lbs. / 540 lbs.		
Water Pressure Min / Max	30 PSI (0.21 MPa) / 160 PSI (1.1 MPa)		
Clearances			
Back	24"		
Front	30"		
Top	30"		
Sides	12"		
Certifications	Energy Star, NSF 372, UL 60355-2-40, CSA C22.2 and CTA-2045		
Warranty	1 Year on Parts and Compressor, 3 Years on Thermal Battery		

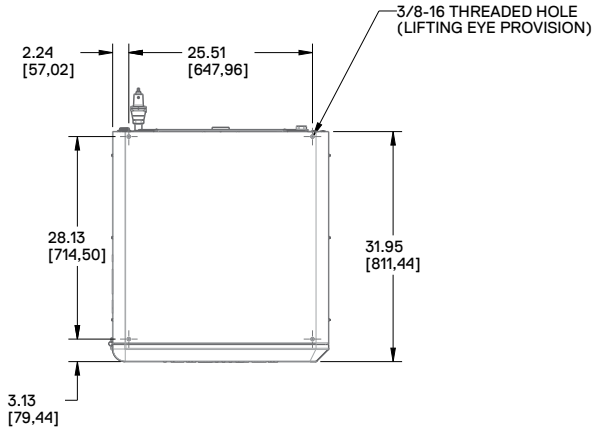
Note: Due to Intellihot's policy of continuous product improvements the design and technical specifications are subjected to change without notice.

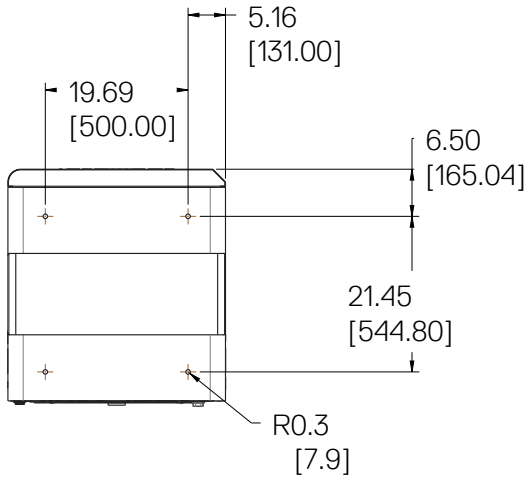
iE1 Electrical Requirements

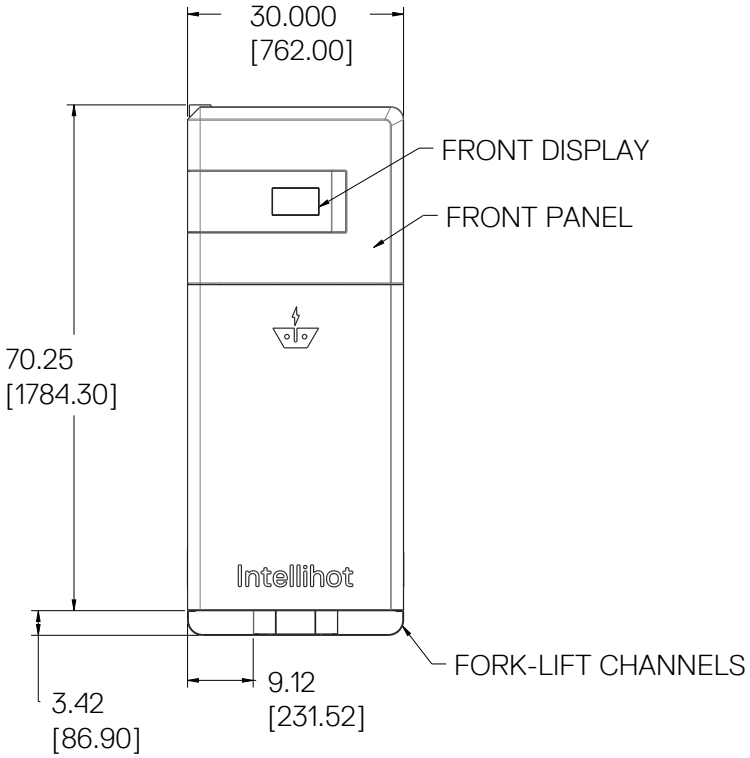
Electrical power required for the water heater is 208 VAC, 60 Hz. Each unit must have it's own dedicated breaker with a shut off switch. The shut off switch located near the sight of the water heater for maintenance and emergency shut off. Please ensure correct polarity of wiring before powering up unit. Select a model that suits your electrical infrastructure the best:

	iE1Std	**iE**1Mid	**iE**1Max
Minimum Breaker Size	25 Amps	50 Amps	60 Amps

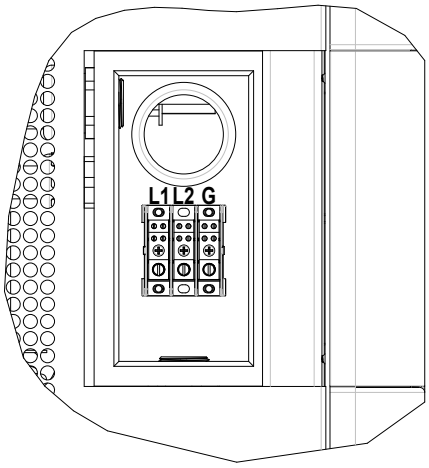
iE1 Dimensional Specifications







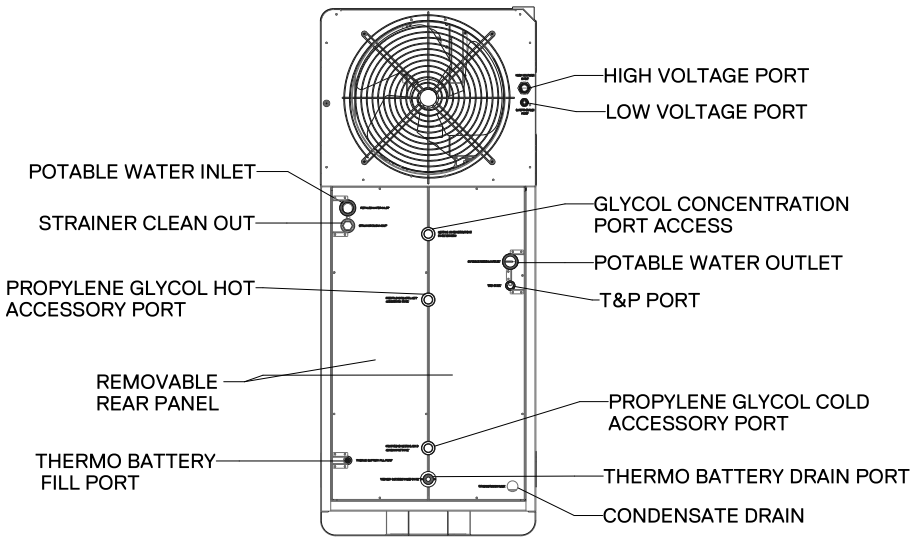
FRONT VIEW

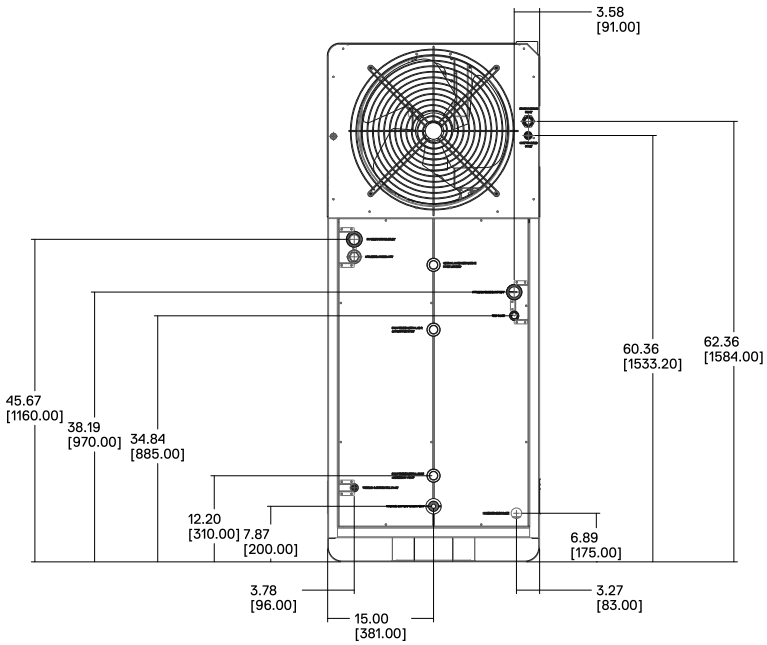


L1: LINE 1
L2: LINE 2
G: GROUND

ELECTRICAL CONNECTIONS

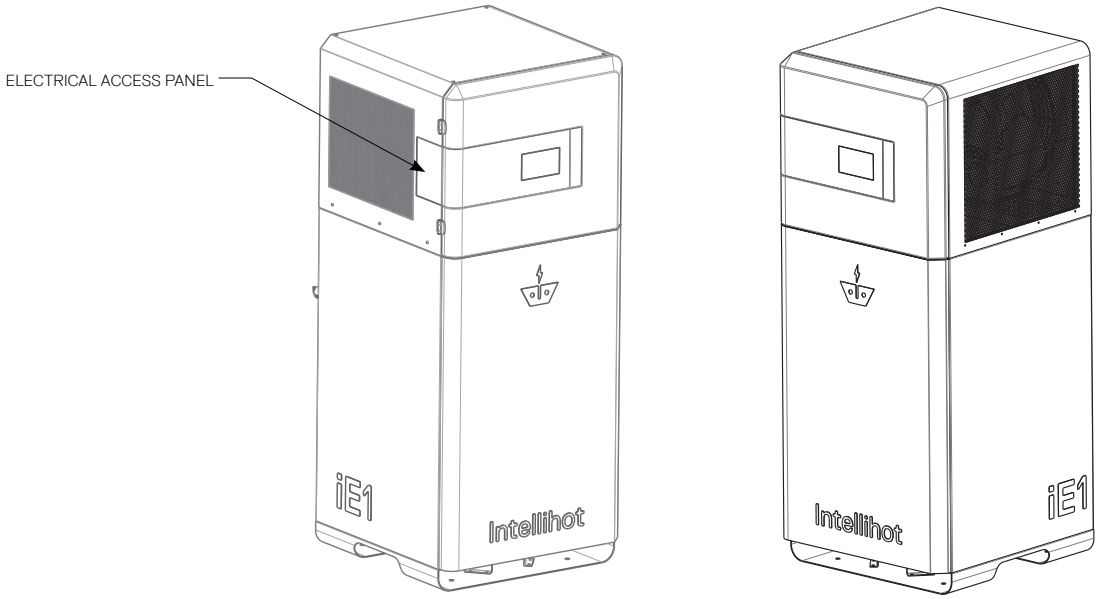
iE1 Dimensional Specifications





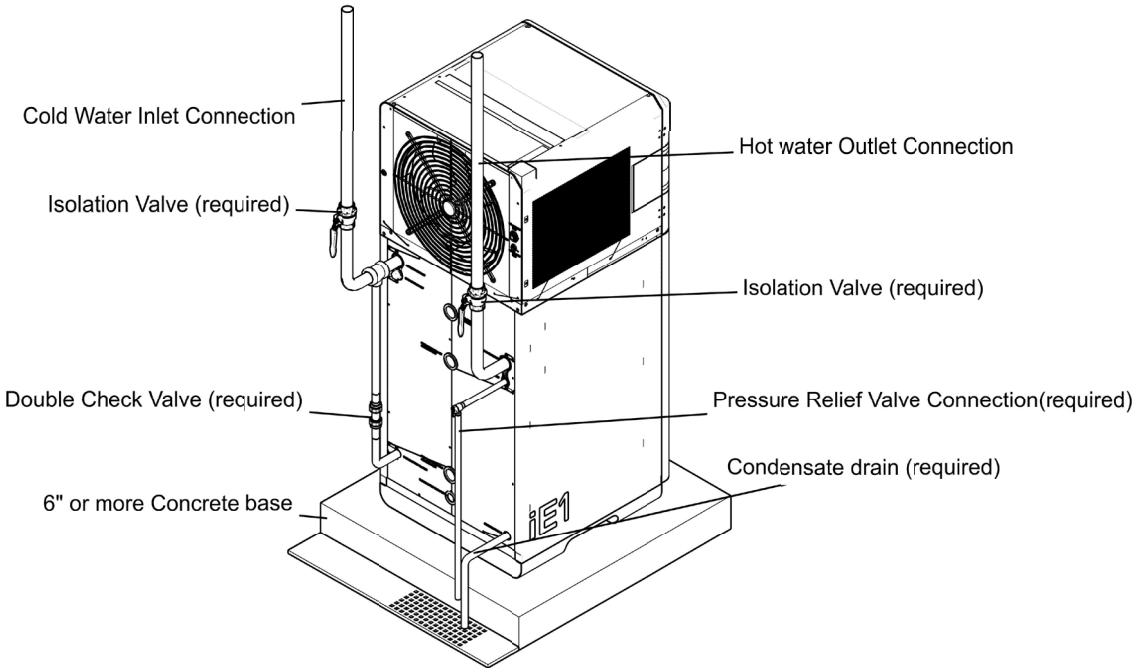
BACK VIEW

iE1 Dimensional Specifications

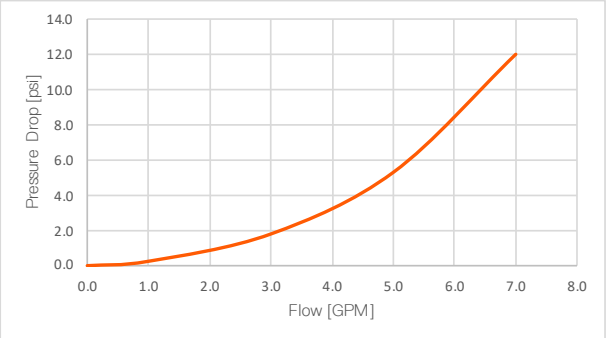


SIDE VIEWS

iE1 Plumbing Setup



iE1 Pressure Drop



iE1 Cascading

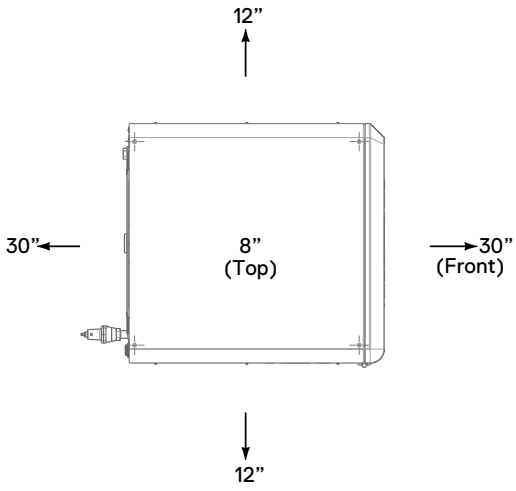
Up to six units can be cascaded wirelessly using the built-in Bluetooth capability.

iE1 Clearance Requirements

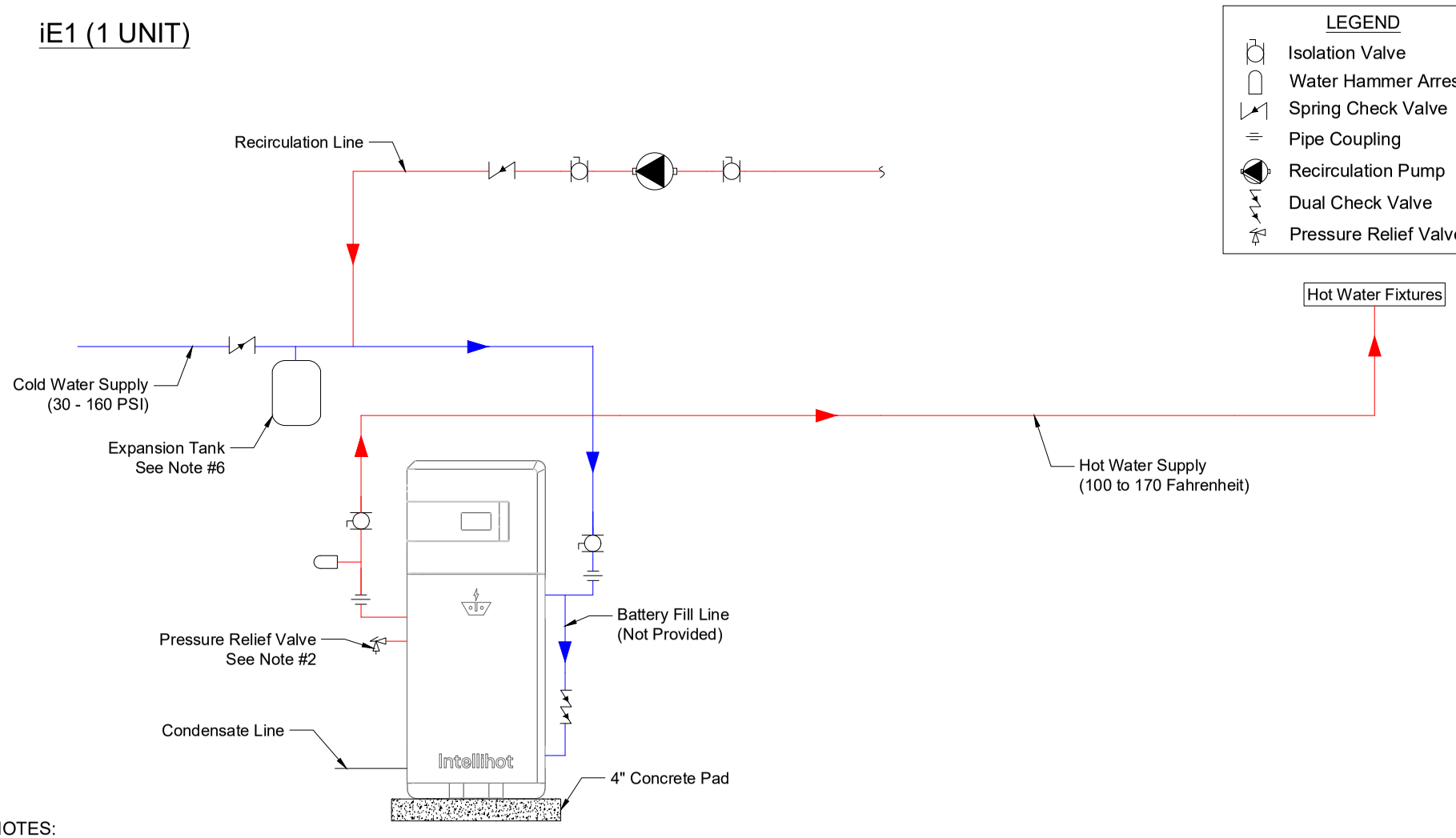
The clearances are listed in the table below. For ease of installation and in order to achieve service clearances, perform electrical connections first before making all other connections (water and condensate).

Clearance	*Required*		*Recommended*
	From Combustibles	From Non-Combustibles	Service Clearance[1]
Top	8”	8”	30”
Back	30”	30”	30”
Sides	24”	24”	30”
Front	30”	30”	30”

[1] Required clearances to enable easier service of the unit.



iE1 (1 UNIT)



NOTES:

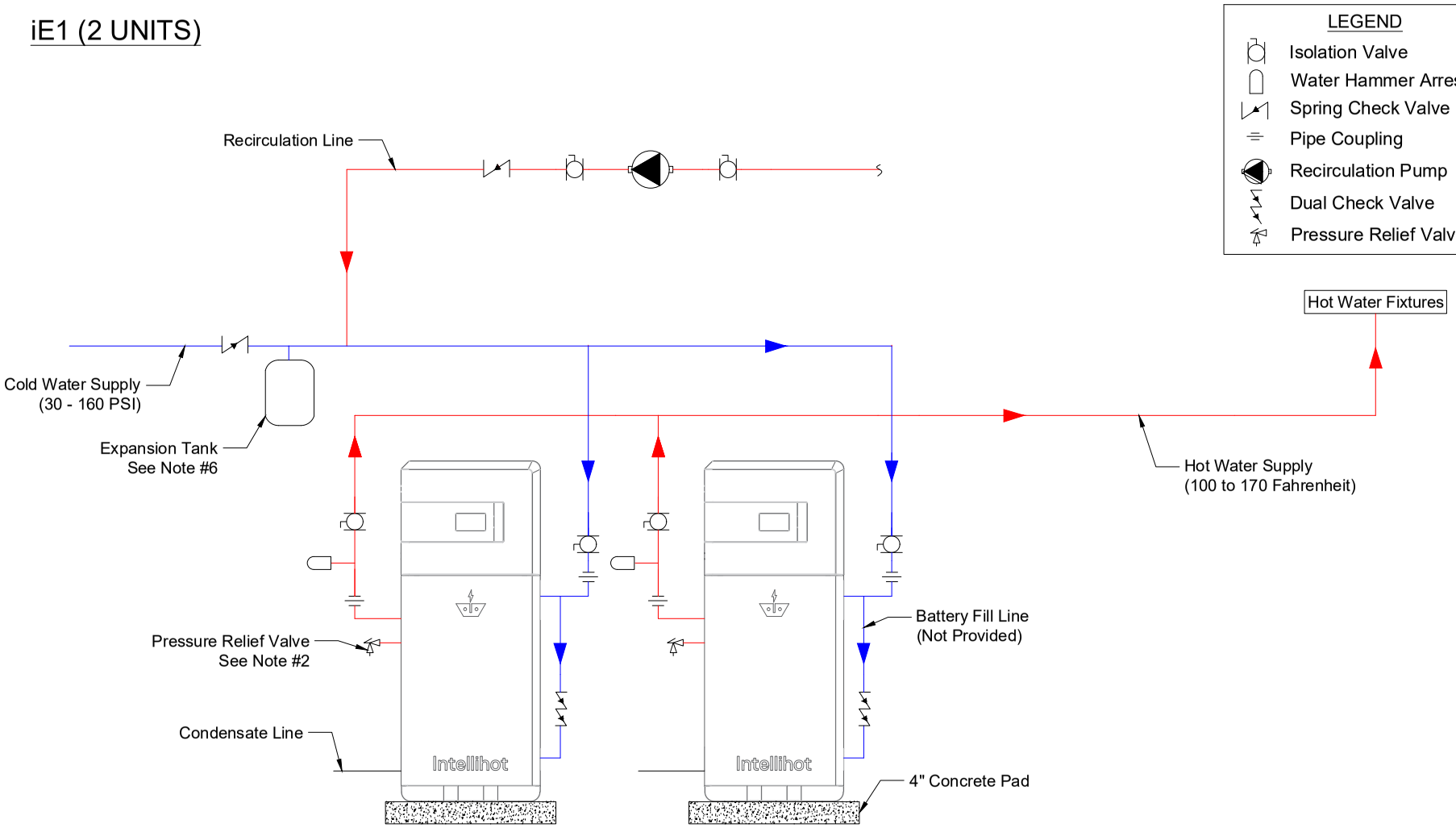
1. This schematic is a suggested piping configuration. Units are not to be installed in a closed loop system.
2. Pressure relief valve is shipped with the unit and need to be installed.
3. Y-strainer is built into the unit and accessible for service from the outside.
4. Any additional requirements from local codes and ordinances shall supersede this diagram.
5. For pipe sizes and electrical requirements, please refer to the operation and installation manual.
6. Expansion tank to be sized based on the gallons of water in the plumbing system and to be installed per manufacturer's instruction.
7. Spring check valve to be installed at every sink and aerator to be used at all fixtures.
8. Water hammer arrestor is not shipped with the unit and needs to be purchased. It should be installed within 1 foot of each unit.

DRAWING NUMBER:

JOB NAME:

Intellihot

iE1 (2 UNITS)



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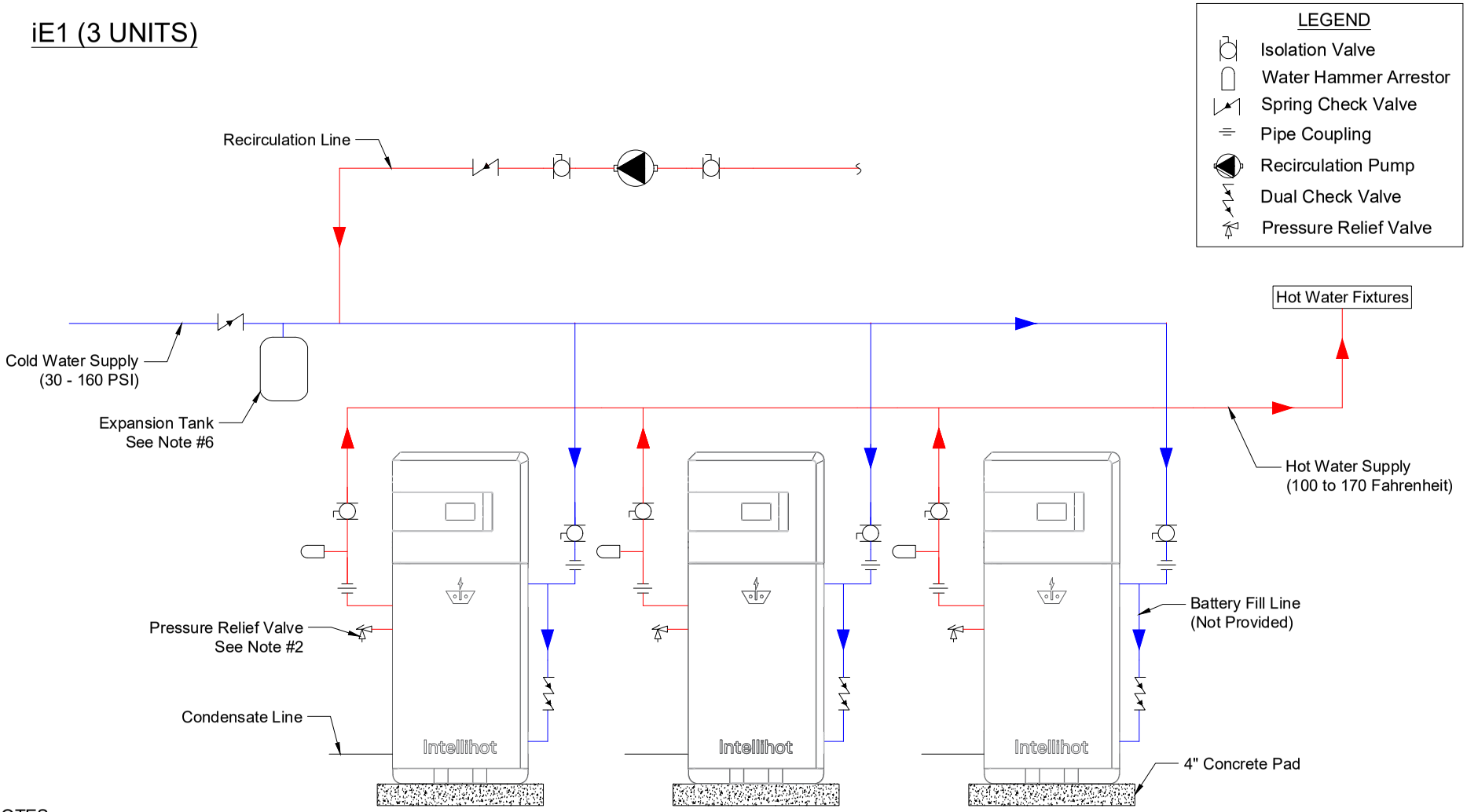
iE1 (3 UNITS)



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4. Any additional requirements from local codes and ordinances shall supersede this diagram.
5. For pipe sizes and electrical requirements, please refer to the operation and installation manual.
6. Expansion tank to be sized based on the gallons of water in the plumbing system and to be installed per manufacturer's instruction.
7. Spring check valve to be installed at every sink and aerator to be used at all fixtures.
8. Water hammer arrestor is not shipped with the unit and needs to be purchased. It should be installed within 1 foot of each unit.

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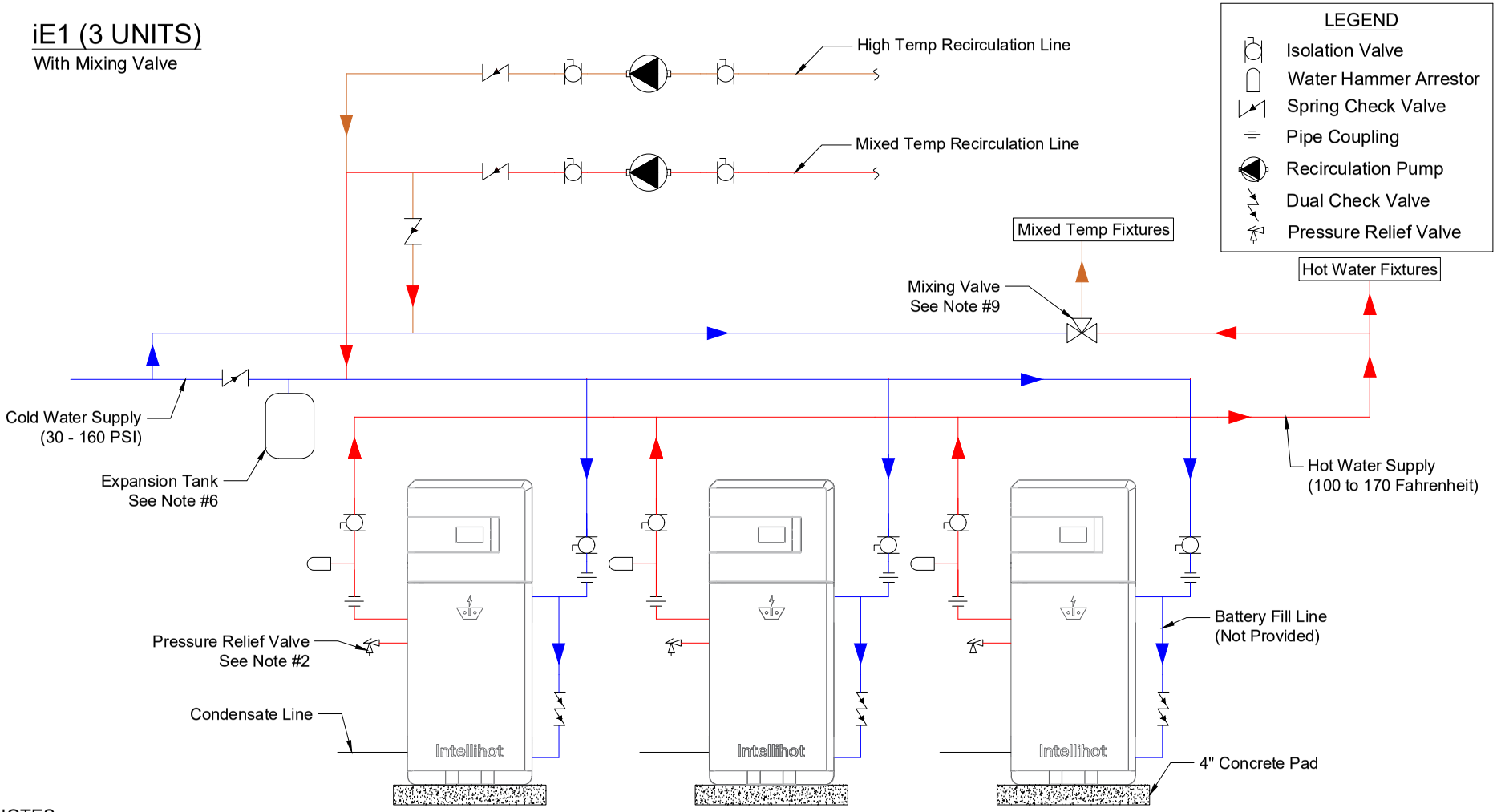
iE1 (3 UNITS)

With Mixing Valve



NOTES:

1. This schematic is a suggested piping configuration. Units are not to be installed in a closed loop system.
2. Pressure relief valve is shipped with the unit and need to be installed.
3. Y-strainer is built into the unit and accessible for service from the outside.
4. Any additional requirements from local codes and ordinances shall supersede this diagram.
5. For pipe sizes and electrical requirements, please refer to the operation and installation manual.
6. Expansion tank to be sized based on the gallons of water in the plumbing system and to be installed per manufacturer's instruction.
7. Spring check valve to be installed at every sink and aerator to be used at all fixtures.
8. Water hammer arrestor is not shipped with the unit and needs to be purchased. It should be installed within 1 foot of each unit.
9. Mixing Valve and plumbing circuit to be installed per Manufacturer's Instructions.

DRAWING NUMBER:

JOB NAME:

Intellihot