



Engineering Manual

UHWS-D3VJ

UHWS40D3VJ

UHWS50D3VJ

UHWS80D3VJ



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UHWS-D3VJ

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1. Features

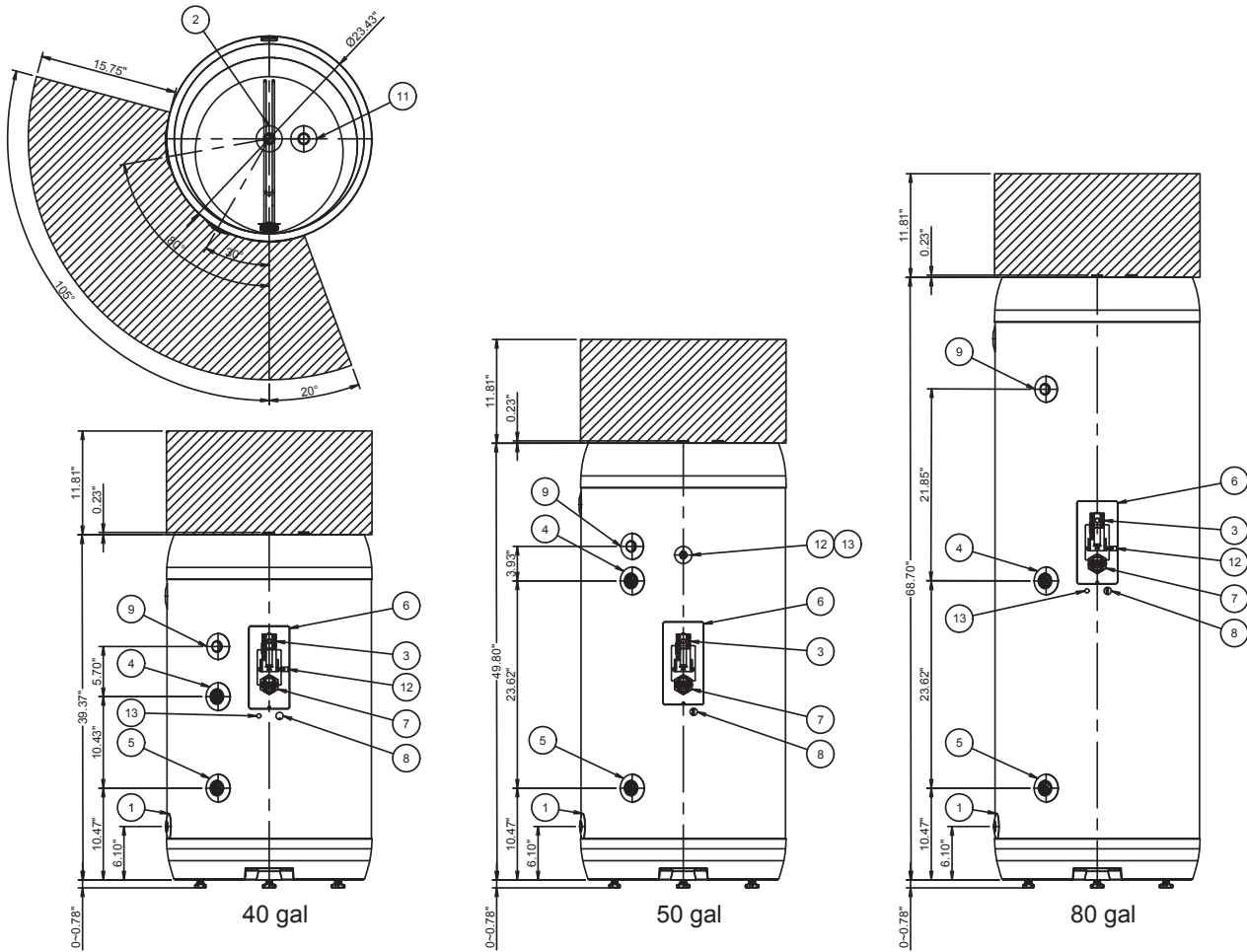
- Stainless steel domestic hot water tank
- Available in 40, 50, and 80 gallons
- High-quality insulation
- Integrated recirculation connection
- Connection for an optional anode
- Integrated 3 kW electric booster heater with App functionality
- NSF61 / 372 certification

2. Specifications

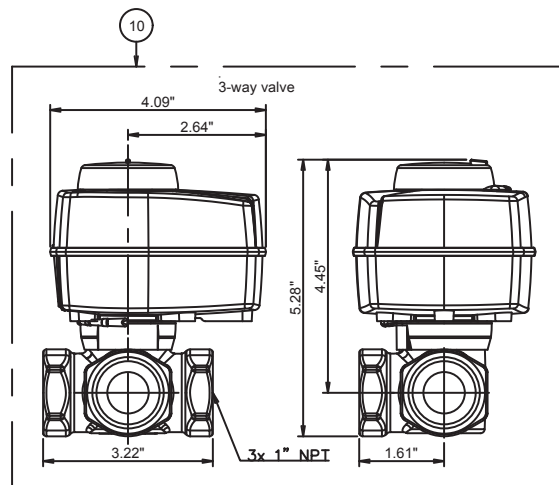
| 2.1 Technical Specifications | | | | UHWS40D3VJ | UHWS50D3VJ | UHWS80D3VJ | |
|-------------------------------|--------------------------------------|-------------------------|---------------------|--|-------------------|------------|------|
| Casing | Color | | | Neutral white | | | |
| | Material | | | Epoxy-coated steel / Epoxy-coated mild steel | | | |
| Dimensions | Unit | Height | inch | 39 3/8 | 49 13/16 | 68 11/16 | |
| | | Diameter | inch | 23 7/16 | | | |
| | Packed unit | Height | inch | 40 13/16 | 51 3/8 | 70 5/16 | |
| | | Width | inch | 23 5/8 | | | |
| Weight | Unit | Empty | lb | 99.2 | 116.8 | 138.9 | |
| | | Full | lb | 418.9 | 540.1 | 782.6 | |
| | Packed unit | Empty | lb | 110.2 | 130.1 | 154.3 | |
| Packing | Material | | | Carton | | | |
| | Weight | | | 1.1 | 3.3 | 5.5 | |
| Tank | Water volume | | | gal | 38.3 | 50.7 | 77.1 |
| | Material | | | Stainless steel | | | |
| | Maximum water temperature | | | °F | 167 | | |
| | Maximum water pressure | | | psi | 145 | | |
| | Insulation | Heat loss | Btu/24h | 3,753 (1) | 4,436 (1) | 5,459 (1) | |
| | | Material | | | Polyurethane foam | | |
| | Minimum thickness | | | inch | 1.8 | | |
| | Standing heat loss | | | Btu/h | 194 | 232 | 280 |
| Storage volume | | | gal | 38.3 | 50.7 | 77.1 | |
| Heat exchanger | Domestic hot water | Quantity | | 1 | | | |
| | | Tube material | | Stainless steel | | | |
| | | Face area | ft² | 11.3 | 19.4 | | |
| | | Internal coil volume | gal | 1.3 | 2.2 | | |
| | | Operating pressure | psi | 145 | | | |
| Booster heater | Quantity | | 1 | | | | |
| | Capacity | | kW | 3 | | | |
| 3-way valve | Coefficient of flow (kV) | Space heating | ft³/h | 423.8 | | | |
| | | Domestic hot water tank | ft³/h | 423.8 | | | |
| | | Unit | ft³/h | 423.8 | | | |
| | Inlet | | inch | NPT 1" (female) | | | |
| Outlet | | inch | 2 x NPT 1" (female) | | | | |
| Temperature sensor | Cable length | | inch | 39.4 | | | |
| Piping connections | Water inlet heat exchanger diameter | | inch | NPT 1" (female) | | | |
| | Water outlet heat exchanger diameter | | inch | NPT 1" (female) | | | |
| | Cold water in | Diameter | inch | NPT 3/4" (female) | | | |
| | Hot water out | Diameter | inch | NPT 3/4" (female) | | | |
| | Recirculation connection | | inch | NPT 3/4" (female) | | | |
| Safety devices | Item | | | Thermal cut out: 185°F | | | |
| General | Supplier/Manufacturer details | Name and address | | Daikin Comfort Technologies Manufacturing, Inc. 19001 Kermier Rd, Waller, TX 77484, U.S.A | | | |
| 2.2 Electrical Specifications | | | | UHWS40D3VJ | UHWS50D3VJ | UHWS80D3VJ | |
| Power supply | Phase | | | 1~ | | | |
| | Frequency | | Hz | 60 | | | |
| | Voltage | | V | 208/230 | | | |
| | MOP | | A | 20 | | | |
| | MCA | | A | 16.25 | | | |

(1) Heatloss according to EN12897

3. Dimensional Drawing



- ① Water mains IN $\cdot 3/4"$ NPT· (female)
- ② Domestic hot water: hot water out $\cdot 3/4"$ NPT· (female)
- ③ Thermostat
- ④ Water IN connection (from indoor unit) $\cdot 1"$ NPT· (female)
- ⑤ Water OUT connection (to indoor unit) $\cdot 1"$ NPT· (female)
- ⑥ Switch box
- ⑦ Booster heater
- ⑧ Wiring intake for booster heater power supply
- ⑨ Recirculation connection $\cdot 3/4"$ NPT· (female)
- ⑩ 3-way valve
- ⑪ Optional connection for anode $\cdot 3/4"$ NPT· (female)
- ⑫ Thermistor
- ⑬ Wire intake for thermistor



4. Wiring Diagram


NOTES: to go through before starting the unit


— — — — : Earth wiring


— 15 — : Wire number 15

- - - - - : Field supply

① : Several wiring possibilities

 : Option

 : Wiring depending on model

 : Not mounted in switch box

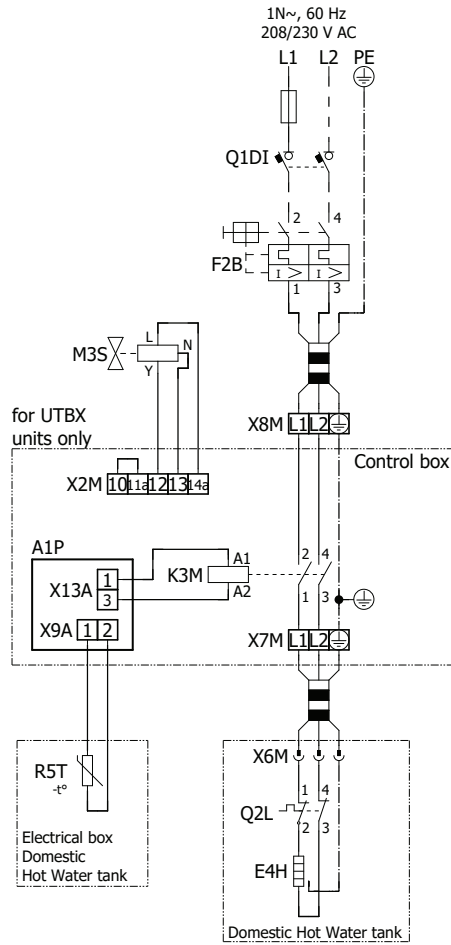
 : PCB

LEGEND:

| Part n° | Description |
|---------|---|
| A1P | main PCB |
| E4H | booster heater |
| F2B | # overcurrent fuse booster heater |
| K3M | contactor booster heater |
| M3S | 3 way valve for floorheating / domestic hot water |
| Q1DI | # earth leakage circuit breaker |
| Q2L | thermal protector booster heater |
| R5T | domestic hot water thermistor |
| X*M | terminal strip |

* : optional

: field supply



Warning

- Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Use only those parts and accessories supplied or specified by Daikin. Ask a qualified installer or contractor to install those parts and accessories. Use of unauthorised parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Read the user's manual carefully before using this product. The user's manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

If you have any enquiries, please contact your local importer, distributor and/or retailer.

CAUTIONS ON PRODUCT CORROSION

1. Heat Pumps should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the outdoor unit close to the sea shore, contact your local distributor.

