



SAPPHIRE



SINGLE ZONE WALL MOUNTED HEAT PUMP SYSTEM

| | | |
|------------------------------|---------|--------------|
| TW30HQ3B2D | | |
| Indoor Unit | | TW30HQ3B2DI |
| Outdoor Unit | | TW30HQ3B2DO |
| Performance | | |
| Cooling Rated Capacity | Btu/h | 28,000 |
| Cooling Cap. Range Min-Max | Btu/h | 5,500~30,700 |
| SEER/EER | | 23.0/11.19 |
| Heating Rated Capacity(47°F) | Btu/h | 28,800 |
| Heating Rated Capacity(17°F) | Btu/h | 28,800 |
| Heating Cap. Range Min-Max | Btu/h | 4,400~35,200 |
| HSPF/COP | | 10.5/3.11 |
| Electrical | | |
| Voltage, Phase, Cycle | V-Ph-Hz | 208/230-1-60 |
| Voltage Range | V | 187~253 |
| MCA | A | 30.0 |
| MOP | A | 50 |
| Compressor RLA | A | 23 |
| Fan Motor FLA | A | 0.73 |
| Cooling Power Input | W | 2,500 |
| Heating Power Input | W | 2,700 |
| Piping | | |
| Pipe Length Min-Max | ft | 10~165 |
| Max Pipe Elevation | ft | 100 |
| Liquid Line | in | 1/4 |
| Vapor Line | in | 5/8 |
| Connection Type | | Flare |



| | | |
|------------------------------|--------|---------------------------|
| Operating Range | | |
| Cooling Outdoor DB | °F | 0~109 |
| Heating Outdoor DB | °F | -31~75 |
| System Data | | |
| Compressor Type | | DC Inverter Driven Rotary |
| Refrigerant Type | | R410A |
| Factory Charge | oz | 123.5 |
| Pre-Charge Length | ft | 25 |
| Additional Charge | oz/ft | 0.30 |
| Refrigerant Control | | EXV |
| ODU Sound Pressure | dB(A) | 61 |
| IDU Sound Pressure (Min/Max) | dB(A) | 36/55 |
| IDU Airflow | cfm | 441/824 |
| Dehumidification | pts/hr | 6.34 |



| | | | |
|--------------|--|-------|--|
| Job Name: | | Date: | |
| Reference #: | | | |
| Signature: | | | |

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SINGLE ZONE WALL MOUNTED HEAT PUMP SYSTEM

| COOLING PERFORMANCE* | | | | | | | | |
|----------------------|----------------------------|----------|----------|----------|----------|----------|----------|----------|
| Outdoor Ambient DB | Indoor Ambient Temperature | | | | | | | |
| | 68°F DB | | 74°F DB | | 80°F DB | | 82°F DB | |
| | 57°F WB | | 61°F WB | | 67°F WB | | 68°F WB | |
| | TC | SHC | TC | SHC | TC | SHC | TC | SHC |
| 0°F | 8,179 | 5,929.8 | 10,435.3 | 7,565.6 | 12,691.6 | 9,201.4 | 14,101.8 | 10,223.8 |
| 5°F | 10,717.4 | 7,823.7 | 12,973.7 | 9,470.8 | 15,229.9 | 11,117.8 | 15,794 | 11,529.6 |
| 14°F | 12,127.5 | 8,913.7 | 14,383.8 | 10,572.1 | 16,640.1 | 12,230.5 | 17,204.2 | 12,645.1 |
| 23°F | 12,691.6 | 9,391.8 | 14,947.9 | 11,061.4 | 17,204.2 | 12,731.1 | 18,050.3 | 13,357.2 |
| 32°F | 13,255.7 | 9,875.5 | 15,512 | 11,556.4 | 17,768.3 | 13,237.4 | 18,896.4 | 14,077.8 |
| 41°F | 14,947.9 | 11,210.9 | 17,204.2 | 12,903.2 | 19,460.5 | 14,595.4 | 20,306.6 | 15,230 |
| 50°F | 16,640.1 | 12,563.3 | 18,896.4 | 14,266.8 | 21,152.7 | 15,970.3 | 21,998.8 | 16,609.1 |
| 59°F | 17,768.3 | 13,503.9 | 20,024.6 | 15,218.7 | 22,280.8 | 16,933.4 | 22,562.9 | 17,147.8 |
| 68°F | 18,614.4 | 14,240 | 20,870.7 | 15,966.1 | 23,126.9 | 17,692.1 | 23,409 | 17,907.9 |
| 77°F | 23,691 | 18,242.1 | 25,947.3 | 19,979.4 | 28,203.6 | 21,716.8 | 28,485.6 | 21,933.9 |
| 86°F | 25,665.3 | 19,890.6 | 27,921.6 | 21,639.2 | 30,177.8 | 23,387.8 | 29,049.7 | 22,513.5 |
| 95°F | 23,691 | 18,479.6 | 25,947.3 | 20,238.9 | 28,203.6 | 21,998.8 | 29,895.8 | 23,318.7 |
| 104°F | 20,588.6 | 16,162.1 | 22,844.9 | 17,933.2 | 25,101.2 | 19,704.4 | 27,921.6 | 21,918.5 |
| 113°F | 18,896.4 | 14,928.2 | 21,152.7 | 16,710.6 | 23,409 | 18,493.1 | 25,665.3 | 20,275.6 |
| 122°F | 16,076.4 | 12,780.4 | 18,332.3 | 14,574.2 | 20,588.6 | 16,367.9 | 22,844.9 | 18,161.7 |
| 129°F | 12,127.5 | 9,702 | 14,383.8 | 11,507 | 16,640.1 | 13,312.1 | 21,998.8 | 17,599 |
| HEATING PERFORMANCE* | | | | | | | | |
| Outdoor Ambient DB | Indoor Ambient Temperature | | | | | | | |
| | 68°F DB | | 70°F DB | | 80°F DB | | 86°F DB | |
| | 57°F WB | | 60°F WB | | 67°F WB | | 72°F WB | |
| | TC | SHC | TC | SHC | TC | SHC | TC | SHC |
| -31°F | / | / | / | / | / | / | / | / |
| -22°F | 30,475 | 30,475 | 30,020 | 30,020 | 29,717 | 29,717 | 29,263 | 29,263 |
| -13°F | 30,535 | 30,535 | 30,081 | 30,081 | 29,778 | 29,778 | 29,323 | 29,323 |
| -5°F | 30,596 | 30,596 | 30,141 | 30,141 | 29,838 | 29,838 | 29,384 | 29,384 |
| 0°F | 30,656 | 30,656 | 30,202 | 30,202 | 29,899 | 29,899 | 29,445 | 29,445 |
| 5°F | 30,717 | 30,717 | 30,263 | 30,263 | 29,960 | 29,960 | 29,505 | 29,505 |
| 10°F | 30,777 | 30,777 | 30,323 | 30,323 | 30,020 | 30,020 | 29,566 | 29,566 |
| 17°F | 30,838 | 30,838 | 30,384 | 30,384 | 30,081 | 30,081 | 29,626 | 29,626 |
| 20°F | 30,899 | 30,899 | 30,444 | 30,444 | 30,141 | 30,141 | 29,687 | 29,687 |
| 24°F | 30,959 | 30,959 | 30,505 | 30,505 | 30,202 | 30,202 | 29,748 | 29,748 |
| 32°F | 31,020 | 31,020 | 30,565 | 30,565 | 30,263 | 30,263 | 29,808 | 29,808 |
| 41°F | 31,080 | 31,080 | 30,626 | 30,626 | 30,323 | 30,323 | 29,869 | 29,869 |
| 43°F | 31,141 | 31,141 | 30,687 | 30,687 | 30,384 | 30,384 | 29,929 | 29,929 |
| 47°F | 30,747 | 30,747 | 30,293 | 30,293 | 29,990 | 29,990 | 29,535 | 29,535 |
| 53°F | 29,722 | 29,722 | 29,267 | 29,267 | 28,964 | 28,964 | 28,510 | 28,510 |
| 59°F | 28,852 | 28,852 | 28,397 | 28,397 | 28,094 | 28,094 | 27,640 | 27,640 |
| 64°F | 27,541 | 27,541 | 27,086 | 27,086 | 26,783 | 26,783 | 26,329 | 26,329 |
| 70°F | 25,926 | 25,926 | 25,471 | 25,471 | 25,168 | 25,168 | 24,714 | 24,714 |
| 75°F | 24,697 | 24,697 | 24,243 | 24,243 | 23,940 | 23,940 | 23,486 | 23,486 |
| 78°F | 24,373 | 24,373 | 23,919 | 23,919 | 23,616 | 23,616 | 23,161 | 23,161 |

* Maximum System Capacity

TC - Total Capacity(Btu/h)

SHC - Sensible Capacity(Btu/h)

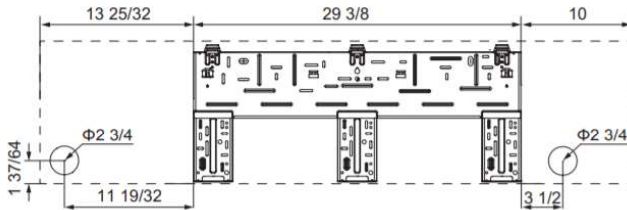
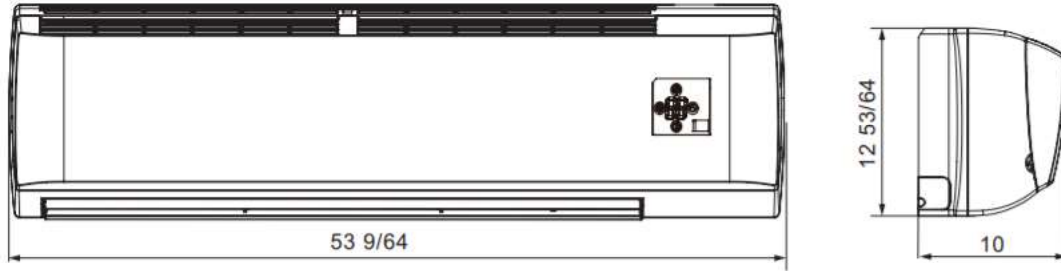


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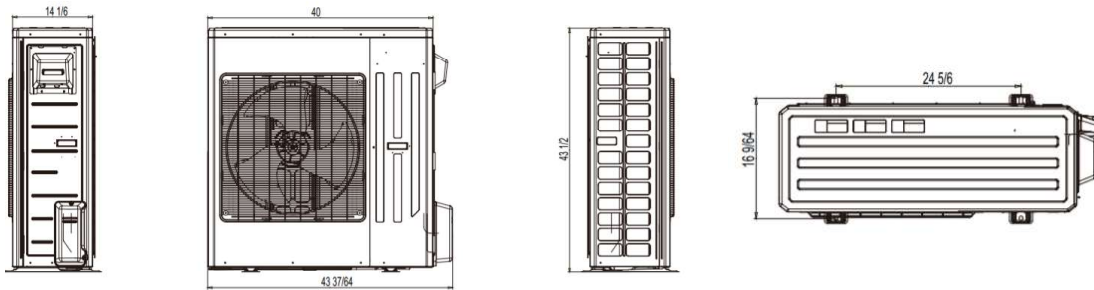


SINGLE ZONE WALL MOUNTED HEAT PUMP SYSTEM

OUTLINE AND PHYSICAL DIMENSIONS



| | |
|-------------------|------------------|
| Liquid Line Valve | 1/4-in OD Flared |
| Gas Line Valve | 5/8-in OD Flared |
| Drain Connector | 5/8-in OD |
| Net Weight IDU | 41.9 lb |
| Gross Weight IDU | 51.8 lb |



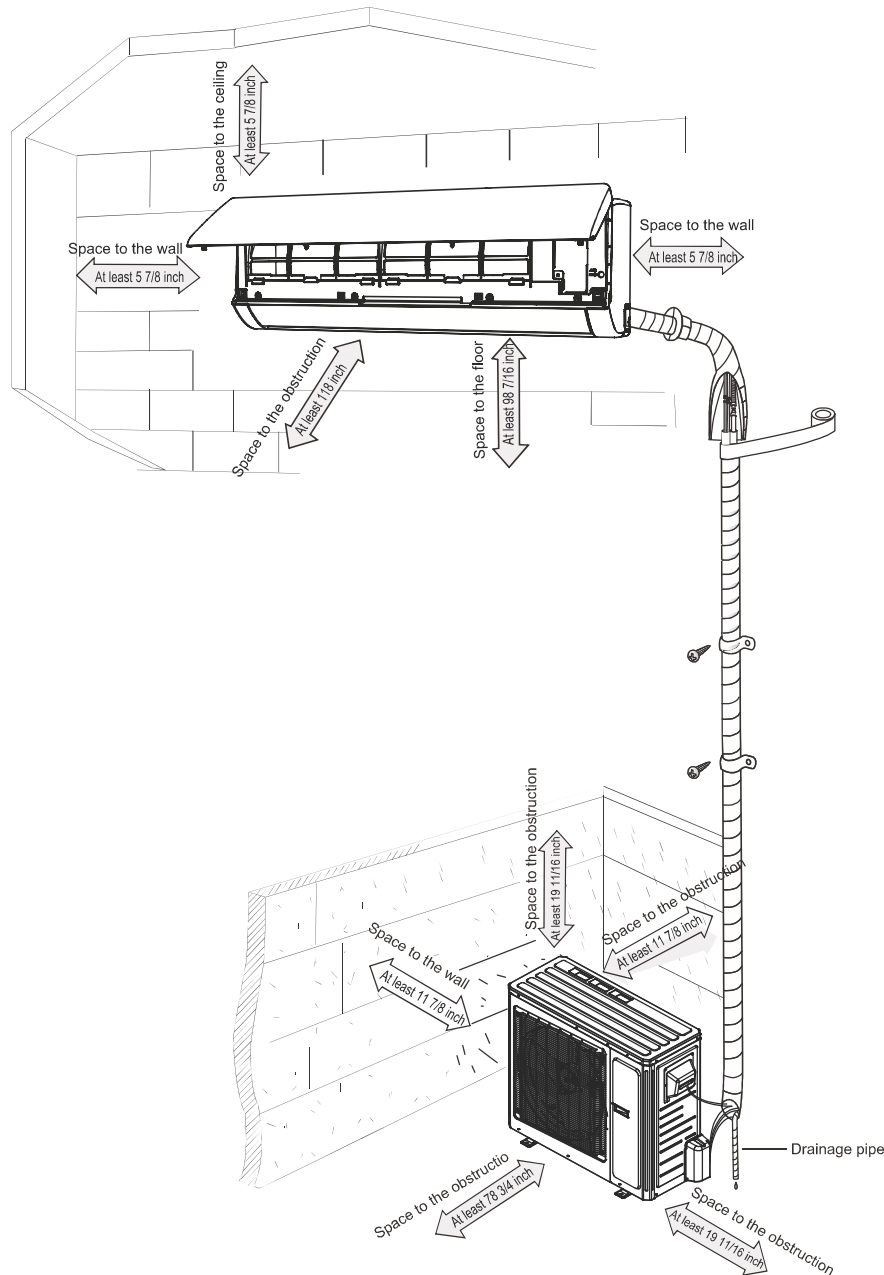
| | |
|-------------------|------------------|
| Liquid Line Valve | 1/4-in OD Flared |
| Gas Line Valve | 5/8-in OD Flared |
| Net Weight ODU | 229.3 lb |
| Gross Weight ODU | 240.3 lb |

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INSTALLATION DIAGRAM



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