# CWM17-30-15

Submittal / unit summary

TAG: _____

**PRODUCT NAME** ComfortStar Air Handler - CWM17-30-15

**LOCATION**

**ARCHITECT**

**ENGINEER**

**CONTRACTOR**

**SUBMITTED BY** **DATE**

## UNIT SUMMARY

| | |
|---|---|
| Quantity | |
| Unit Designation | |
| Model No. | CWM17-30-15 |
| Cooling Input | |
| Cooling Output | 27,000 Btu/h |
| CFM / ESP | 1,060 CFM / ESP: _____ |
| Electrical | |
| Minimum Ampacity | 5 A (without electric heat) |
| Max Overcurrent Protection | 6 A (without electric heat) |
| Net Unit Weight | 107 lb (48.5 kg) |
| Accessory | |
| Catalog Form Number | |

**ACCESSORIES**

**NOTES**

Electric heat: use the heater schedule on the final page.

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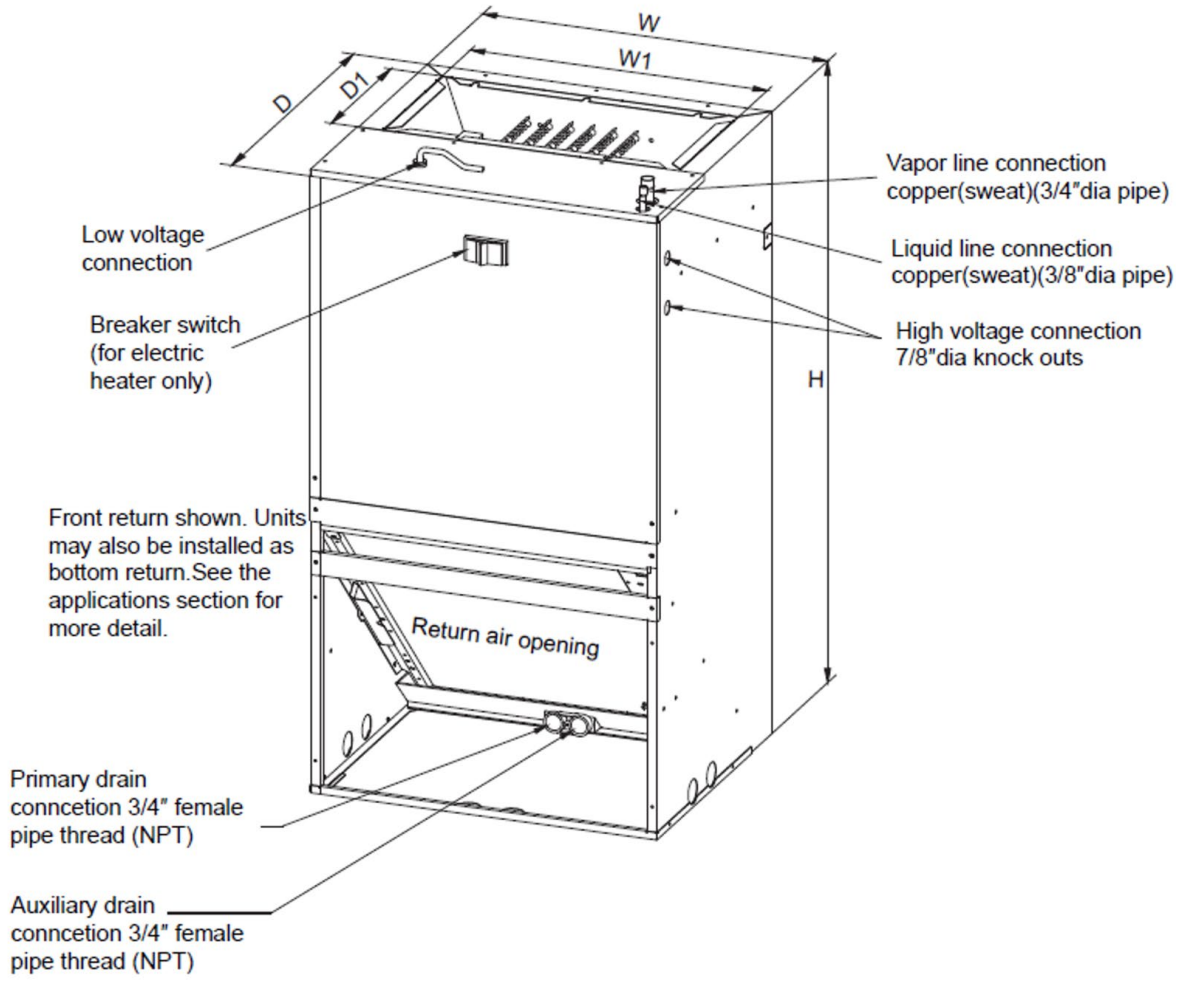
## Individual specifications

| PERFORMANCE | SPECIFICATION |
|---|---|
| Cooling capacity | 27,000 Btu/h |
| SEER2 / EER2 | 14.3 / 11.7 Btu/h.W |
| Reference room area | 441 sq ft |
| Indoor airflow / noise | 1,060 CFM / 53 dB(A) |
| MCA / MOP - without electric heater | 5 A / 6 A |
| INDOOR FAN MOTOR | |
| Type / model | ECM / DZJ-373F-12 |
| Motor power supply | AC 220-240 V / 50, 60 Hz |
| Rated current / output | 3.8 A / 373 W |
| Speed | 1,050 rpm |
| INDOOR COIL / HEATER | |
| Coil rows / circuits | 5 / 8 |
| Fin spacing / material | 1/16 in. / Hydrophilic |
| Tube outside diameter / material | 0.276 in. / Inner grooved |
| Throttling type | Piston |
| Electric heater options | 5 / 8 / 10 kW nominal; see heater schedule |
| PACKAGING / WEIGHT | |
| Packing W x D x H (in.) | 24-1/2 x 21-4/5 x 42-1/10 |
| Packing W x D x H (mm) | 630 x 565 x 1070 |
| Net / gross weight | 107 / 121 lb; 48.5 / 55 kg |

| OUTDOOR UNIT MODEL NO. | INDOOR UNIT MODEL NO. | COOLING CAPACITY (BTU/H) | SEER2 (BTU/H/W) | EER2 (BTU/H/W) |
|---|---|---|---|---|
| CUC30-15-S | CWM17-30-15 | 27000 | 14.3 | 11.7 |

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## Dimensions and connection details




| DIMENSION | DIMENSIONAL DATA |
|---|---|
| Height H | 39-1/2 in. [1004 mm] |
| Width W | 22 in. [559 mm] |
| Depth D | 19 in. [483 mm] |
| Supply duct W1 | 18-4/5 in. [478 mm] |
| Weight shown with drawing | 107 lb [48.5 kg] |

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Model-specific blower airflow data

| Model size of air processor | Motor speed | | SCFM | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | External Static Pressure-Inch Water Column [kPa] | | | | | | |
| | | | 0[0] | 0.1[.02] | 0.2[.05] | 0.3[.07] | 0.4[.10] | 0.5[.12] | 0.6[.15] |
| 30K | Tap (5) | SCFM | 1360 | 1333 | 1291 | 1262 | 1221 | 1194 | 1152 |
| | | Watts | 297 | 305 | 313 | 319 | 328 | 334 | 343 |
| | Tap (4) | SCFM | 1248 | 1219 | 1174 | 1144 | 1101 | 1071 | 1022 |
| | | Watts | 237 | 243 | 251 | 257 | 267 | 272 | 278 |
| | Tap (3) | SCFM | 1116 | 1082 | 1031 | 999 | 948 | 916 | 865 |
| | | Watts | 175 | 179 | 188 | 193 | 200 | 205 | 213 |
| | Tap (2) | SCFM | 1011 | 974 | 921 | 884 | 833 | 796 | 731 |
| | | Watts | 137 | 142 | 149 | 153 | 160 | 165 | 173 |
| | Tap (1) | SCFM | 892 | 852 | 794 | 753 | 687 | 644 | 564 |
| | | Watts | 102 | 106 | 113 | 117 | 124 | 128 | 135 |

Gray shading identifies the 300-450 CFM/ton range. Airflow is SCFM; power is watts. External static pressure is in. w.c., with kPa in brackets.

## Airflow application notes

1. Use the advanced airflow as the rated airflow for full-load operation.

2. Airflow requirement: 300-450 CFM per ton without an electric heater kit; 350-450 CFM per ton with an electric heater kit.

3. Air distribution has the greatest influence on airflow. The contractor should use industry-recognized procedures.

4. Carefully design and construct air ducts; poor design or workmanship can significantly reduce system performance.

5. Locate and size supply ducts appropriately around the conditioned space. Insufficient airflow or improper placement may cause inadequate ventilation or duct noise.

6. Balance airflow to all rooms. Use an airflow hood or speedometer to verify branch duct and system airflow.

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Features and equipment selection notes

- High heat-transfer efficiency coil with low static-pressure drop.
- Foil-faced insulation and fully insulated cabinet design.
- Factory-sealed cabinet; 2% or less air leakage at 1.0 in. w.c.
- Multi-stage blower speed control for varying capacity demands.
- Standard condensate drain pans.
- Multiple electrical entry locations.
- Blower scroll and coil mounted on slide tracks.
- Integrated filter rack with tool-free door access.
- Copper evaporator connections for brazing.
- Advanced internal welding process to reduce potential corrosion.
- AHRI and ETL listed.
- Factory-installed R32 refrigerant sensor.

## Electric heat

Available heater sizes: **5 / 8 / 10 kW nominal; see heater schedule**. The final page combines kit compatibility, voltage-specific heating output, electrical ratings and permitted fan taps.

## Return-air configuration

The drawing identifies front return and optional bottom return. A separate configuration description identifies rear return. Confirm the selected return-air configuration with ComfortStar.

## Equipment selection

Selected heater kit: _____

Selected supply voltage: _____ Fan tap: _____

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## Electric heater kit compatibility and electrical data

All paired values are listed as **208 V / 230 V**. Catalog size is the nominal kit designation; heating output varies by voltage. Fan taps shown are permitted settings.

| Kit part no. | Catalog kW | Heat output kW | Current A | MCA A | MOP A | Permitted fan taps |
|---|---|---|---|---|---|---|
| CHE6W-05B | 5 | 3.8 / 5 | 19.66 / 22.68 | 25 / 29 | 30 / 35 | 1, 2, 3, 4, 5 |
| CHE6W-08B | 8 | 5.6 / 7.5 | 29.50 / 34.04 | 37 / 43 | 40 / 45 | 2, 3, 4, 5 |
| CHE6W-10B | 10 | 7.5 / 10 | 39.32 / 45.37 | 50 / 57 | 55 / 60 | 3, 4, 5 |

MCA = minimum circuit ampacity. MOP = maximum fuse or HACR circuit breaker ampacity. Select the value corresponding to the operating voltage.

CHE6W-08B is cataloged as 8 kW; its electrical heating output is 5.6 kW at 208 V and 7.5 kW at 230 V. CHE6W-05B and CHE6W-10B outputs are likewise voltage-specific.

Breaker configuration: CHE6W-05B and CHE6W-08B are described as single-pole kits. CHE6W-10B is described as a single/double-pole kit. Verify the supplied kit and wiring diagram for the selected installation.

Selection: kit _____ Voltage _____ Fan tap _____