CWM17-24-15

Submittal / unit summary

TAG: _____

PRODUCT NAME ComfortStar Air Handler - CWM17-24-15

LOCATION

ARCHITECT

ENGINEER

CONTRACTOR

SUBMITTED BY **DATE**

UNIT SUMMARY

Quantity	
Unit Designation	
Model No.	CWM17-24-15
Cooling Input	
Cooling Output	22,800 Btu/h
CFM / ESP	760 CFM / ESP: _____
Electrical	
Minimum Ampacity	5 A (without electric heat)
Max Overcurrent Protection	6 A (without electric heat)
Net Unit Weight	87 lb (39.5 kg)
Accessory	
Catalog Form Number	

ACCESSORIES

NOTES

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

CWM17-24-15

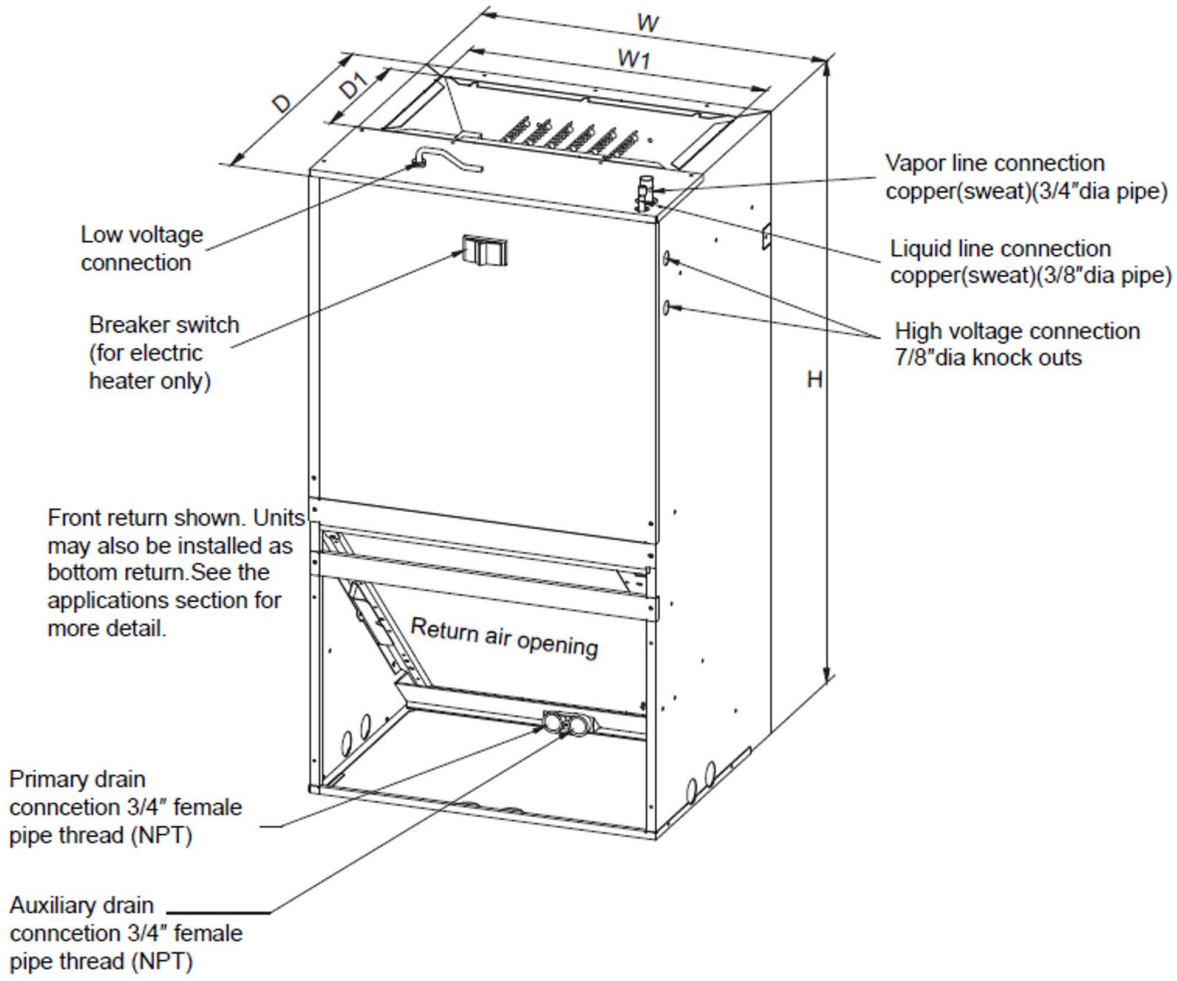
Individual specifications

PERFORMANCE	SPECIFICATION
Cooling capacity	22,800 Btu/h
SEER2 / EER2	14.3 / 11.7 Btu/h.W
Reference room area	355 sq ft
Indoor airflow / noise	760 CFM / 51 dB(A)
MCA / MOP - without electric heater	5 A / 6 A
INDOOR FAN MOTOR	
Type / model	ECM / DZJ-249F-12
Motor power supply	AC 220-240 V / 50, 60 Hz
Rated current / output	2.6 A / 249 W
Speed	1,050 rpm
INDOOR COIL / HEATER	
Coil rows / circuits	5 / 6
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.)	23-3/7 x 17-1/2 x 39-1/2
Packing W x D x H (mm)	600 x 450 x 1005
Net / gross weight	87 / 98 lb; 39.5 / 44.5 kg

OUTDOOR UNIT MODEL NO.	INDOOR UNIT MODEL NO.	COOLING CAPACITY (BTU/H)	SEER2 (BTU/H/W)	EER2 (BTU/H/W)
CUC24-15-S	CWM17-24-15	22800	14.3	11.7

CWM17-24-15

Dimensions and connection details



DIMENSION	DIMENSIONAL DATA
Height H	36-1/2 in. [927 mm]
Width W	20-2/3 in. [526 mm]
Depth D	15 in. [381 mm]
Supply duct W1	17-1/2 in. [446 mm]
Weight	87 lb [40 kg]

CWM17-24-15

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]
24K	Tap (5)	SCFM	885	860	821	797	760	736	697
		Watts	173	178	185	189	197	201	208
	Tap (4)	SCFM	866	843	803	777	742	717	679
		Watts	166	170	176	181	188	192	199
	Tap (3)	SCFM	763	733	690	663	624	596	556
		Watts	122	126	131	135	141	145	152
	Tap (2)	SCFM	668	635	587	557	512	481	428
		Watts	89	93	98	102	107	110	117
	Tap (1)	SCFM	600	564	513	480	430	390	340
		Watts	71	74	79	82	87	91	98

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.

CWM17-24-15

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: _____

CWM17-24-15

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	3, 4, 5
CHE6W-10B	10	7.5 / 10	39.32 / 45.37	50 / 57	55 / 60	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 _____