

Model: CMHG

Specifications & Submittal Sheet

New Construction/Replacement Water Source Heat Pump Console

CMHG Equipment Model Decoding: Operation: Cooling Capacity: Piping Options: Electric Heat: [H=Heat Pump] [08=10,000 Btuh] [0=None (Std)] [L=Left Hand (Std)] [12=12,000 Btuh] [2=2kW@230V] [R=Right Hand] Refrigerant: [3=3kW@230V] [M=Left Hand Monoflow] [G=R-410A] [N=Right Hand Monoflow] [4=4kW@230V] Voltage: Intertek Model Series: [5=5kW@230V] [A=115V/1ph/60Hz] Cabinet Options: [CM=Friedrich & Climate [D=208-230V/1ph/60Hz (Std)] [A=Bottom Return (Std)] Master 801 Replacement] [E=265-277V/1ph/60Hz] [D=Front Return] Water Coil Options: Controls Options: [0=Sweat (Std)] [0=Unit Mount MCO] [A=Remote] [1=Female Pipe Thread] [1=Unit Mount MCO, Boilerless (Elec Ht)] [B=Remote, Primary/Secondary] [2=Male Pipe Thread] [2=Unit Mount MCO w/ Disconnect] [C=Remote w/ Disconnect] [3=Ball VIv & Union] [3=Unit Mount MCO, Boilerless (Elec Ht) w/ Disconnect] [D=Remote, Primary/Secondary, w/ Disconnect] [4=Sweat w/ CuNi Coil] [4=Unit Mount ACO] [E=Remote, Boilerless (Elec Ht)] [5=FPT w/ CuNi Coil] [5=Unit Mount ACO Boilerless (Elec Ht)] [F=Remote, Primary/Secondary, Boilerless (Elec Ht)] [6=MPT w/ CuNi Coil] [6=Unit Mount ACO w/ Disconnect] [G=Remote, Boilerless (Elec Ht) w/ Disconnect] [7=BV&U w/ CuNi Coil] [7=Unit Mount ACO, Boilerless (Elec Ht) w/ Disconnect] [H=Remote, Primary/Secondary, Boilerless (Elec Ht) w/ Disconnect]

| Important Selection Notes | Order Qty |
|---|-----------|
| Electric Heat available on the CMHG08, 208/230V & 265V | |
| Only "2"/"3" Electric Heat available for 265V, see Page 2/IOM If selecting electric heat, select a "Boilerless" control option | |
| 24Vac Remote thermostat sold separately | |
| Primary/Secondary has replaced Master/Slave | |



| Please indicate the quantity of any field-installed accessory, desired for each unit | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|
| Thermostat, Single-Stage, 1-Heat/1-Cool, 24Vac, Programmable, ICM, Manual Changeover (PN 240008208) | | Thermostat, T9000, Wireless, Battery, Single Stage, 1-Ht/1-Cl, 5/2-Prog, MCO [#240009905 also required] (PN 240009781) | | | | | | | |
| Thermostat, 2-Stage, 2-Heat/2-Cool, 24Vac, Programmable, ICM, Manual Changeover (PN 240008209) | | Remote Control Node, T9000, Printed Circuit Board, Wireless, 24Vac, 1/unit req'd [#240009781 also required] (PN 240009905) | | | | | | | |
| Thermostat, Single-Stage, 1-Heat/1-Cool, 24Vac, Programmable, ICM, Auto Changeover (PN 240008210) | | Isolation Ball Valve, 1/2", Sweat Connections (PN 107000001) | | | | | | | |

| DOE Performance Data (AHRI/ISO 13256-1) | | | | | | | | | |
|---|--------------|----------|------|------------------------|-----|-----------|-------|--|--|
| | Cooling | Sensible | | Hoot Bump | СОР | Indoo | or | | |
| Model | Btuh (kW) | Heat | EER | Heat Pump Btuh (kW) | | Airflow | Sound | | |
| | Diuli (KVV) | Ratio | | Bluii (KW) | | CFM (L/S) | dB(A) | | |
| CMHG08 | 10,000 (2.9) | 0.77 | 12.2 | 11,000 (3.2) | 4.3 | 400 (189) | 45 | | |
| CMHG12 | 12,000 (3.5) | 0.85 | 12.2 | 13,600 (4.0) | 4.3 | 450 (212) | 48 | | |
| | ` | | | | | | | | |





| To: | | Project: | |
|-----------|-----------|-----------|--------------|
| Date: | | Customer: | |
| From: | | Location: | |
| Contact: | | Engineer: | |
| | | Unit Tag# | |
| For Your: | Reference | Approval | Construction |

Electrical, Dimensional and Miscellaneous Specifications

| Electrical Data - CMHG08 | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|------|----------|---------|------------|--------|------|---------------|---------|-------|------|------|----------|------------|------------|--------------|------------|-------|------|-------------|-------|------|
| D | | Comp | *0000* | Indoor Fan | | | Electric Heat | | | | | Unit Ele | ectrical F | Ratings | | | | | | | |
| Power Supply | | Compi | 162201 | Mo | tor | | Elect | пс пеас | | TCA | THA | MCA | МОСР | Standard | Optional | | | | | | |
| Voltage | Min. | RLA | LRA | FLA | Нр | Htr# | Htr V | Htr W | Htr A | ICA | 1117 | IVICA | WICCI | Connection | Plug | | | | | | |
| 115V/1ph/60Hz | 104 | 8 | 45.6 | 1.4 | 0.09 | 0 | N/A | N/A | N/A | 9.4 | N/A | 11.4 | 15 | Hard-Wired | 5-15P | | | | | | |
| | | | | | | 0 | N/A | N/A | N/A | | N/A | 5.6 | 15 | Hard-Wired | 6-15P | | | | | | |
| | | | | | | | | 2 | 208 | 1636 | 7.9 |] | 8.5 | 10.6 | 15 | Hard-Wired | 6-15P | | | | |
| | | | | 0.6 | | | 230 | 2000 | 8.7 | | 9.3 | 11.6 | 15 | naiu-wiieu | 0-10F | | | | | | |
| | | | | | | 3 | 208 | 2454 | 11.8 | | 12.4 | 15.5 | 20 | Hard-Wired | 6-20P | | | | | | |
| 208-230V/1ph/60Hz | 197 | 4 | 22.2 | | 0.6 | 0.6 | 0.08 | 0.08 | 0.08 | 0.08 | 3 | 230 | 3000 | 13.0 | 4.6 | 13.6 | 17.1 | 20 | Haru-vviieu | 0-20P | |
| | | | | | | | | | | | | | | | | 4 | 208 | 3271 | 15.7 |] | 16.3 |
| | | | | | | 4 | 230 | 4000 | 17.4 | 1 | 18.0 | 22.5 | 25 | Hard-Wired | 0-30P | | | | | | |
| | | | | | | 5 | 208 | 4089 | 19.7 | | 20.3 | 25.3 | 30 | Hard-Wired | 6-30P | | | | | | |
| | | | | | | | 3 | 230 | 5000 | 21.7 | | 22.3 | 27.9 | 30 | Tialu-vviieu | 0-30P | | | | | |
| | | | 32 18.8 | | | 0 | N/A | N/A | N/A | | N/A | 4.8 | 15 | Hard-Wired | 7-20P | | | | | | |
| 265V/1ph/60Hz | 240 | 240 3.32 | | 0.67 | 7 0.08 | 2 | 265 | 2655 | 10.0 | 4.0 | 10.7 | 13.4 | 15 | Hard-Wired | 7-20P | | | | | | |
| | | | | | | 3 | 265 | 3983 | 15.0 | | 15.7 | 19.6 | 20 | Hard-Wired | 7-20P | | | | | | |

| Electrical Data - CMHG12 | | | | | | | | | | | | | | | |
|--------------------------|----------------------|-------|--------|-------|---------------|------|-------|---------|-------------------------|------|------|-------|-------|------------|----------|
| Dawar Cumply | Compressor Indoor Fa | | | r Fan | Electric Heat | | | | Unit Electrical Ratings | | | | | | |
| Power Supply | | Compi | ressor | Mo | tor | | Elect | лс пеас | | TCA | THA | MCA | МОСР | Standard | Optional |
| Voltage | Min. | RLA | LRA | FLA | Нр | Htr# | Htr V | Htr W | Htr A | ICA | IIIA | IVICA | WIOCF | Connection | Plug |
| 115V/1ph/60Hz | 104 | 9.2 | 53 | 1.4 | 0.09 | 0 | N/A | N/A | N/A | 10.6 | N/A | 12.9 | 20 | Hard-Wired | 5-20P |
| 208-230V/1ph/60Hz | 197 | 5.1 | 24 | 0.6 | 0.08 | 0 | N/A | N/A | N/A | 5.7 | N/A | 7.0 | 15 | Hard-Wired | 6-15P |
| 265-277V/1ph/60Hz | 240 | 4.2 | 31.5 | 0.67 | 0.08 | 0 | N/A | N/A | N/A | 4.9 | N/A | 5.9 | 15 | Hard-Wired | 7-20P |

| | Optional Electrical Plugs (SER) | | | | | | | | | |
|---------|---------------------------------|---|----------------|---|------------|---|------------|--|--|--|
| | LINE | 15 AM | PERE | 20 AMF | PERE | 30 AMPERE | | | | |
| VOLTAGE | NO. | RECEPTACLE | PLUG | RECEPTACLE | PLUG | RECEPTACLE | PLUG | | | |
| 125V | 5 | 5-15R | 5-15P W I | 5-20R U 5-20R | 5-20P (W) | 5-20R () () () () () () | 5-30P WF I | | | |
| 250V | 6 | 6-15R | 6-15P | 6-20R | 6-20P (I - | 6-30R | 6-30P | | | |
| 277V | 7 | 7-15R 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 7-15P G | 7-20R 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 7-20P G W | 7-30R G \(\frac{\rightarrow{\text{G}_{\text{\$\sigma\$}}}}{\rightarrow{\text{\$\sigma\$}_{\text{\$\ext{\$\text{\$\ext{\$\ext{\$\ext{\$\ext{\$\text{\$\exitt{\$\ext{\$\ext{\$\ext{\$\ext{\$\exitt{\$\ext{\$\ext{\$\ext{\$\exitt{\$\ext{\$\ext{\$\ext{\$\exitt{\$\ext{\$\exitt{\$\ext{\$\ext{\$\exitt{\$\exitt}\$\$\$\ext{\$\ext{\$\ext{\$\ext{\$\ext{\$\ext{\$\ext{\$\ext{\$\ext{\$\exitt{\$\ext{\$\exitt{\$\ext{\$\exitt{\$\ext{\$\exitt{\$\exittitt{\$\exitt{\$\exitt{\$\exittitt{\$\exitt{\$\exittitt{\$\exitt{\$\exittitt{\$\exitt{\$\exitt{\$\exitt{\$\exittitt{\$\exitt{\$\exittitt{\$\exittitt{\$\exittitt{\$\exitt{\$\exittit{\$\exitt{\$\exittitt{\$\exittitt{\$\exitt{\$\exittit{\$\exittitt{\$\exittit{\$\exittitt{\$\exittit{\$\exittitt{ | 7-30P | | | |

| Miscellaneous Product Data | | | | | | | |
|----------------------------|--------------------------|--|--|--|--|--|--|
| Return Air Filter | 1-Washable Metal Mesh | | | | | | |
| RA Filter Dims | 10 3/4" x 30 3/4" x 3/8" | | | | | | |
| Shipping Weight | 140 lbs (64 kg) | | | | | | |
| Shipping Dims | 49 3/4" × 29" × 14" | | | | | | |
| Elec Ht (Optional) | EWT ≤ 50°F | | | | | | |
| Compressor Type | Rotary/R-410A | | | | | | |
| CMHG08 Ref Chrg | 19 Ounces | | | | | | |
| CMHG12 Ref Chrg | 23 Ounces | | | | | | |



| Standard Operating Limits | | | | | | | | |
|---------------------------|---------------------|-----------------|--|--|--|--|--|--|
| Air Temp Limits | Cooling °F (°C) | Heating °F (°C) | | | | | | |
| Minimum Ambient Air | 50 (10) | 50 (10) | | | | | | |
| Rated Ambient Air | 80.7 (27) | 68 (20) | | | | | | |
| Maximum Ambient Air | 100 (38) | 85 (30) | | | | | | |
| Minimum EAT DB/WB | 67/57 (20/14) | N/A | | | | | | |
| Rated EAT DB/WB | 80.7/66.3 (27/19.1) | 68 (20) | | | | | | |
| Maximum EAT DB/WB | 100/83 (38/29) | 80 (27) | | | | | | |
| Water Temp Limits | Cooling °F (°C) | Heating °F (°C) | | | | | | |
| Minimum EWT | 60 (16) | 60 (16) | | | | | | |
| Maximum EWT | 95 (35) | 90 (33) | | | | | | |
| N. FATOA II. (T | | | | | | | | |

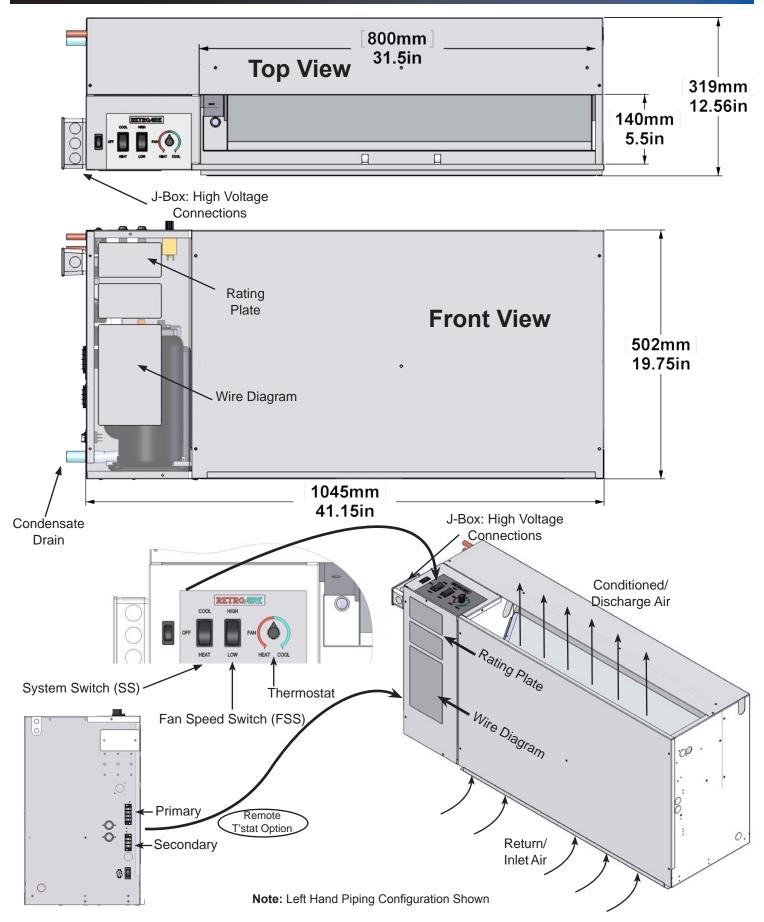
Note: EAT & Ambient Temp surrounding the unit, are the same value

Job-Guide Specifications

- Standard Warranty: 1 Year Parts & 5 Year Compressor
- High Pressure Switch with Integral Compressor Lockout Relay (Cycle SS Off/On to Reset)
- Low Water Temperature Cut-out Switch with Integral Compressor Lockout Relay (Cycle SS Off/On to Reset)
- Indoor Coil Freeze Protection
- Single Stage Heating Operation (w/ or w/o Electric Heat)
- DOE Performance Qualified & Listed
- ETL-US & Canada Listed for Safety to UL484 Standard
- Directly replaces Friedrich/Climate Master "801" Series
- Reversing Valve Energized in Cooling
- Meets ASHRAE 90.1-2010 for New Construction efficiency

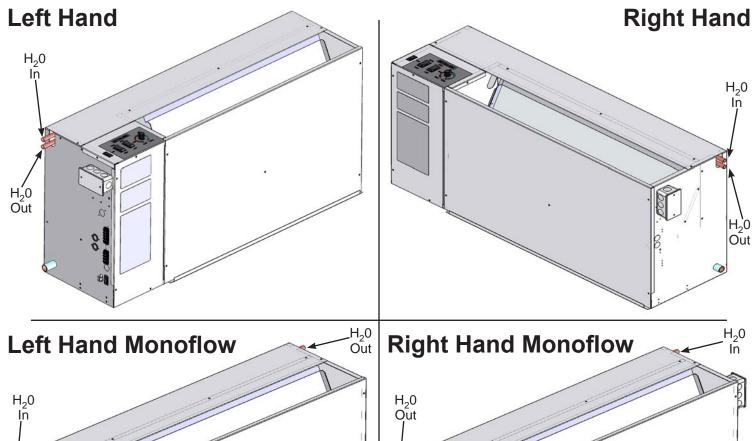
NOTICE: Due to ongoing product development; design, specification and performance data listed within this submittal document are subject to change without notice. For the most current performance data, please refer to ECR International listings of certified products in the AHRI directory, or consult the factory.

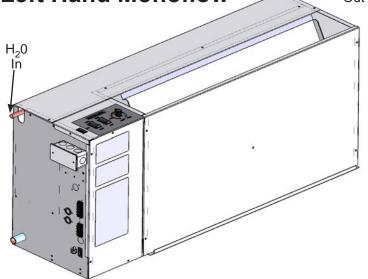
Dimensional Specifications

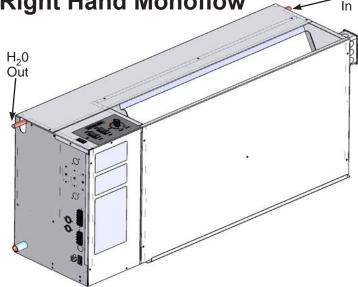


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Water Coil Piping Configuration Options & Notes









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