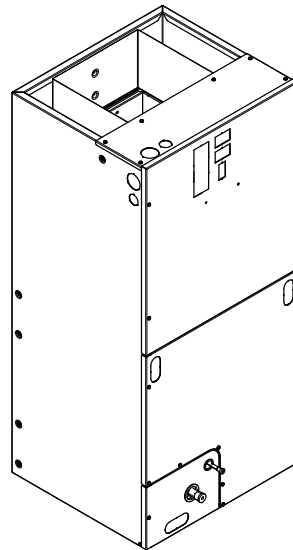


Submittal

Variable Speed Convertible Air Handler 3 Ton

TEM8A0C36V31DB



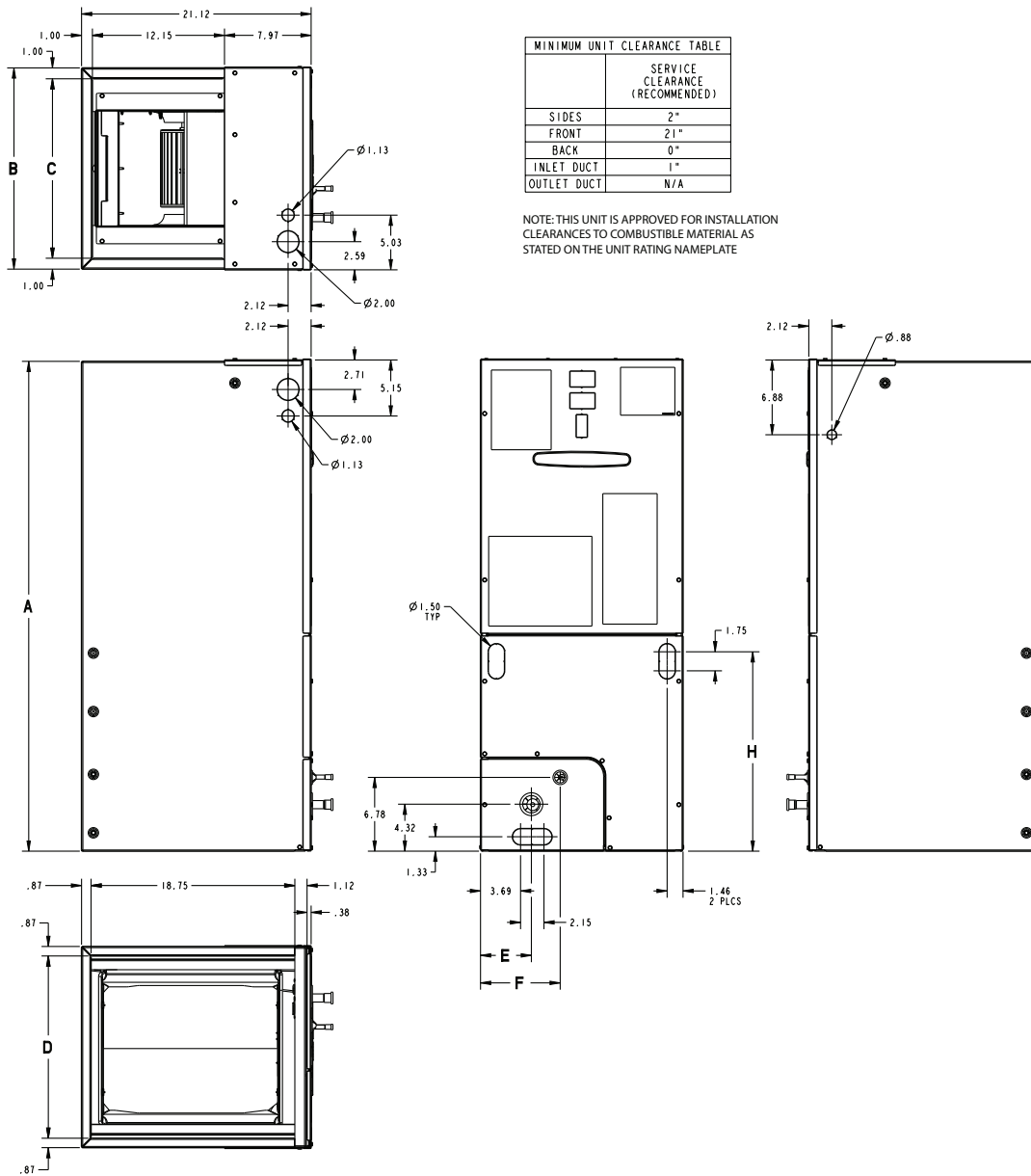
Note: The TEM8 series air handler is designed for installation in a closet, utility room, alcove, basement, crawlspace or attic. These versatile units are applicable to air conditioning and heat pump applications. Several models are available to meet the specific requirements of the outdoor equipment. Field installed electric resistance heaters are available.

TAG: _____

▲ SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

Outline Drawing



| MINIMUM UNIT CLEARANCE TABLE | |
|------------------------------|---------------------------------|
| | SERVICE CLEARANCE (RECOMMENDED) |
| SIDES | 2" |
| FRONT | 21" |
| BACK | 0" |
| INLET DUCT | 1" |
| OUTLET DUCT | N/A |

NOTE: THIS UNIT IS APPROVED FOR INSTALLATION CLEARANCES TO COMBUSTIBLE MATERIAL AS STATED ON THE UNIT RATING NAMEPLATE

| PRODUCT DIMENSIONS | | | | | | | | | |
|--------------------|-------|-------|-------|-------|------|------|-------|--------------|----------------|
| Air Handler Model | A | B | C | D | E | F | H | Flow Control | Gas Line Braze |
| TEM8A0C36V31DB | 51.27 | 23.50 | 21.50 | 21.75 | 7.01 | 9.66 | 24.59 | TXV | 7/8 |

All dimensions are in inches

Product Specifications

| | |
|---------------------------------------|----------------------------|
| MODEL | TEM8A0C36V31DB |
| RATED VOLTS/PH/HZ | 208-230/1/60 |
| RATINGS^(a) | See O.D. Specifications |
| INDOOR COIL — Type | Plate Fin |
| Rows — F.P.I. | 4 - 14 |
| Face Area (sq. ft.) | 4.59 |
| Tube Size (in.) | 3/8 |
| Refrigerant Control | TXV |
| Drain Conn. Size (in.) ^(b) | 3/4 NPT |
| DUCT CONNECTIONS | See Outline Drawing |
| INDOOR FAN — Type | Centrifugal |
| Diameter-Width (In.) | 11 X 8 |
| No. Used | 1 |
| Drive - No. Speeds | Direct - 16 |
| CFM vs. in. w.g. | See Fan Performance Table |
| No. Motors — H.P. | 1 - 1/2 |
| Motor Speed R.P.M. | Variable |
| Volts/Ph/Hz | 208-230/1/60 |

| | |
|-----------------------------------|--------------------------|
| F.L. Amps | 3.9 |
| FILTER | |
| Filter Furnished? ^(c) | No |
| REFRIGERANT | R-410A |
| Ref. Line Connections | Brazed |
| Coupling or Conn. Size — in. Gas | 7/8 |
| Coupling or Conn. Size — in. Liq. | 3/8 |
| DIMENSIONS | H x W x D |
| Crated (In.) | 52-3/4 x 27-1/2 x 25-1/2 |
| Uncrated | 51-3/8 x 23-1/2 x 21-1/8 |
| WEIGHT | |
| Shipping (Lbs.) / Net (Lbs.) | 155/144 |

^(a) These Air Handlers are A.H.R.I certified with various Split System Air Conditioners and Heat Pumps (AHRI STANDARD 210/240). Refer to the Split System Outdoor Unit Product Data Guides for performance data.

^(b) 3/4" Male Plastic Pipe (Ref: ASTM 1785-76)

^(c) Remote filter required.

Minimum Airflow CFM

| TEM8A0C36V31DB | | |
|--|----------------------------|-------------------|
| Heater | Minimum Heater Airflow CFM | |
| | With Heat Pump | Without Heat Pump |
| BAYHTR1504BRK, BAYHTR1504LUG BAYHTR1505BRK, BAYHTR1505LUG | 675 | 675 |
| BAYHTR1508BRK, BAYHTR1508LUG | 950 | 900 |
| BAYHTR1510BRK, BAYHTR1510LUG | 950 | 900 |
| BAYHTR1517BRK | 950 | 900 |
| BAYHTR3510LUG | 950 | 900 |
| BAYHTR3517LUG | 1050 | 950 |
| BAYHTR1523BRK | 1500 | 1300 |

Heater Pressure Drop Table

| Airflow CFM | Number of Racks | | | | Heater Racks | |
|----------------|---------------------------------|------|------|------|--------------|--------------|
| | 1 | 2 | 3 | 4 | Heater Model | No. of Racks |
| | Air Pressure Drop — Inches W.G. | | | | | |
| 1800 | 0.02 | 0.04 | 0.06 | 0.14 | BAYHTR1504 | 1 |
| 1700 | 0.02 | 0.04 | 0.06 | 0.14 | BAYHTR1505 | 1 |
| 1600 | 0.02 | 0.04 | 0.06 | 0.13 | BAYHTR1508 | 2 |
| 1500 | 0.02 | 0.04 | 0.06 | 0.12 | BAYHTR1510 | 2 |
| 1400 | 0.02 | 0.04 | 0.06 | 0.12 | BAYHTR1516 | 3 |
| 1300 | 0.02 | 0.04 | 0.05 | 0.11 | BAYHTR3510 | 3 |
| 1200 | 0.01 | 0.04 | 0.05 | 0.10 | BAYHTR3515 | 3 |
| 1100 | 0.01 | 0.03 | 0.05 | 0.09 | BAYHTR1517 | 3 |
| 1000 | 0.01 | 0.03 | 0.04 | 0.09 | BAYHTR1522 | 4 |
| 900 | 0.01 | 0.03 | 0.04 | 0.08 | BAYHTR1523 | 4 |
| 800 | 0.01 | 0.03 | | | BAYHTR3517 | 3 |
| 700 | 0.01 | 0.02 | | | BAYHTR1525 | 4 |
| 600 | 0.01 | 0.02 | | | | |

Subcooling Adjustment

| System Matched with: | Indoor Unit Model No. | Outdoor Model No. | Subcooling |
|---|--|--|------------|
| 16 SEER HP — 2 ton | TEM8A0C36V31 | 4TWR6024H1000A 4TWX6024H1000A 4A6H6024H1000A | 13 Degrees |
| 15 SEER HP — 2 ton | TEM8A0B24V21 TEM8A0B30V31 | 4TWR5024G1000A 4A6H5024G1000A | 14 Degrees |
| 15 SEER HP — 3 ton | TEM8A0B30V31 TEM8A0C36V31 TEM8A0C42V41 | 4TWR5036G1000A 4A6H5036G1000A | 14 Degrees |
| All other matches must be charged per the nameplate charging instructions | | | |

Performance and Electrical Data

| OUTDOOR MULTIPLIER (TONS) | TEM8A0C36V31DB & TEM8A0C42V41DB AIRFLOW PERFORMANCE | | | | | | | | | | CONSTANT CFM MODE / CONSTANT TORQUE MODE | | | | | | | | | |
|---------------------------|---|---------------|---|---------------------|----------------------|---------------------|---------------------|-------------------------|---------------|--------------------------|--|-------------|-------------|-------------|--|--|--|--|--|--|
| | COOLING AIRFLOW SETTING | AIRFLOW POWER | EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque) | | | | | HEATING AIRFLOW SETTING | AIRFLOW POWER | EXTERNAL STATIC PRESSURE | | | | | | | | | | |
| | | | 0.1 | 0.3 | 0.5 | 0.7 | 0.9 | | | 0.1 | 0.3 | 0.5 | 0.7 | 0.9 | | | | | | |
| 2.5 tons | 290 CFM/ton | CFM Watts | 735/837 59/72 | 727/702 96/90 | 700/593 138/105 | 673/415 176/123 | 660/415 215/148 | 290 CFM/ton | CFM Watts | 735 59 | 727 96 | 700 138 | 0.7 176 | 0.9 215 | | | | | | |
| | 350 CFM/ton | CFM Watts | 883/972 82/103 | 884/849 124/123 | 882/746 170/138 | 881/657 223/152 | 870/577 270/168 | 350 CFM/ton | CFM Watts | 883 82 | 884 124 | 882 170 | 881 223 | 870 270 | | | | | | |
| | 400 CFM/ton | CFM Watts | 1007/ 1084 | 1016/971 154/158 | 1033/874 204/174 | 1020/788 269/187 | 1010/711 320/200 | 400 CFM/ton | CFM Watts | 1007 109 | 1016 154 | 1033 204 | 1020 269 | 1010 320 | | | | | | |
| | 450 CFM/ton | CFM Watts | 1133/ 1198 | 1146/ 1093 | 1176/1001 246/220 | 1140/919 321/233 | 1130/845 375/244 | 450 CFM/ton | CFM Watts | 1133 143 | 1146 192 | 1176 246 | 1140 321 | 1130 375 | | | | | | |
| | 290 CFM/ton | CFM Watts | 878/993 82/108 | 879/872 123/129 | 876/771 169/144 | 874/682 221/157 | 865/602 270/173 | 290 CFM/ton | CFM Watts | 878 82 | 879 123 | 876 169 | 874 221 | 865 270 | | | | | | |
| 3 tons | 350 CFM/ton | CFM Watts | 1057/ 1154 | 1068/ 1045 | 1091/952 220/201 | 1070/869 289/213 | 1060/793 340/225 | 350 CFM/ton | CFM Watts | 1057 122 | 1068 168 | 1091 220 | 1070 289 | 1060 340 | | | | | | |
| | 400 CFM/ton | CFM Watts | 1209/ 1289 | 1223/ 1190 | 1255/ 1102 | 1210/ 1024 | 1190/952 410/287 | 400 CFM/ton | CFM Watts | 1209 168 | 1223 219 | 1255 277 | 1210 355 | 1190 410 | | | | | | |
| | 450 CFM/ton | CFM Watts | 1364/ 1426 | 1375/ 1334 | 1393/ 1253 | 1340/ 1179 | 1330/ 480/367 | 450 CFM/ton | CFM Watts | 1364 230 | 1375 286 | 1393 350 | 1340 429 | 1330 480 | | | | | | |
| | 290 CFM/ton | CFM Watts | 1022/ 1123 | 1031/ 1012 | 1050/917 209/188 | 1030/832 275/201 | 1030/756 325/213 | 290 CFM/ton | CFM Watts | 1022 113 | 1031 158 | 1050 209 | 1030 275 | 1030 325 | | | | | | |
| | 350 CFM/ton | CFM Watts | 1235/ 1312 | 1249/ 1214 | 1242/ 1128 | 1230/ 1050 | 1220/978 420/299 | 350 CFM/ton | CFM Watts | 1235 178 | 1249 229 | 1242 288 | 1230 367 | 1220 420 | | | | | | |
| 3.5 tons | 400 CFM/ton | CFM Watts | 1416/1471 254/314 | 1424/ 1383 | 1399/ 1303 | 1380/ 1230 | 1370/ 1163 | 400 CFM/ton | CFM Watts | 1416 254 | 1424 313 | 1399 378 | 1303 455 | 1370 510 | | | | | | |
| | 450 CFM/ton | CFM Watts | 1601/ 1618 | 1591/ 1536 | 1547/ 1462 | 1500/ 1394 | 1390/ 520/514 | 450 CFM/ton | CFM Watts | 1601 356 | 1591 423 | 1547 497 | 1500 553 | 1390 520 | | | | | | |
| | 290 CFM/ton | CFM Watts | 1168/ 1276 | 1182/ 1175 | 1182/ 1087 | 1170/ 1007 | 1160/935 390/279 | 290 CFM/ton | CFM Watts | 1168 155 | 1182 204 | 1182 260 | 1170 337 | 1160 390 | | | | | | |
| | 350 † CFM/ton | CFM Watts | 1416/ 1492 | 1424/ 1404 | 1399/ 1325 | 1380/ 1252 | 1370/ 1185 | 350 † CFM/ton | CFM Watts | 1416 254 | 1424 313 | 1399 378 | 1380 455 | 1370 510 | | | | | | |
| | 400 CFM/ton | CFM Watts | 1628/ 1616 | 1614/ 1535 | 1534/ 1461 | 1500/ 1393 | 1390/ 520/524 | 400 CFM/ton | CFM Watts | 1628 373 | 1614 441 | 1534 517 | 1500 568 | 1390 520 | | | | | | |
| 4 tons † | 450 CFM/ton | CFM Watts | 1714/ 1605 | 1686/ 1525 | 1550/ 1452 | 1500/ 1385 | 1390/ 520/570 | 450 CFM/ton | CFM Watts | 1714 431 | 1686 505 | 1550 584 | 1500 617 | 1390 520 | | | | | | |
| | 431/435 | CFM Watts | 431/435 | 505/468 | 584/492 | 617/510 | | | | | | | | | | | | | | |

- † Factory Setting
- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- In communicating mode, default CFM/Ton is 400.
- Torque mode will reduce airflow when static is above approximately 0.3" water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

Performance and Electrical Data

1. See Product Data or Air Handler nameplate for approved combinations of Air Handlers and Heaters.
2. Heater model numbers may have additional suffix digits.

Note: Heater size needs to be set in Configuration Menu.

Table 1. Electrical Data

| TEM8A0C36V31DB, TEM8A0C42V41DB HEATER DATA | | | | | | | | | | | |
|--|----------------------------|----------|-------|-------------------------------|--------------------------------|-----------------------------------|----------|-------|-------------------------------|--------------------------------|-----------------------------------|
| Heater Model No. | No. of Circuits/ Phases | 240 Volt | | | | | 208 Volt | | | | |
| | | Capacity | | Heater Amps per Circuit | Minimum Circuit Ampacity | Maximum Overload Protection | Capacity | | Heater Amps per Circuit | Minimum Circuit Ampacity | Maximum Overload Protection |
| | | kW | BTUH | | | | kW | BTUH | | | |
| No Heater | | | | 3.9 * | 5 | 15 | | | 3.9 * | 5 | 15 |
| BAYHTR1504BRK BAYHTR1504LUG | 1/1 | 3.84 | 13100 | 16.0 | 25 | 25 | 2.88 | 9800 | 13.8 | 22 | 25 |
| BAYHTR1505BRK BAYHTR1505LUG | 1/1 | 4.80 | 16400 | 20.0 | 30 | 30 | 3.60 | 12300 | 17.3 | 27 | 30 |
| BAYHTR1508BRK BAYHTR1508LUG | 1/1 | 7.68 | 26200 | 32.0 | 45 | 45 | 5.76 | 19700 | 27.7 | 39 | 40 |
| BAYHTR1510BRK BAYHTR1510LUG | 1/1 | 9.60 | 32800 | 40.0 | 55 | 60 | 7.20 | 24600 | 34.6 | 48 | 50 |
| BAYHTR1517BRK Circuit 1 ^(a) | 2/1 | 9.60 | 32800 | 40.0 | 55 | 60 | 7.20 | 24600 | 34.6 | 48 | 50 |
| BAYHTR1517BRK Circuit 2 | | 4.80 | 16400 | 20.0 | 25 | 25 | 3.60 | 12300 | 17.3 | 22 | 25 |
| BAYHTR1523BRK Circuit 1 ^(a) | 2/1 | 9.60 | 32800 | 40.0 | 55 | 60 | 7.20 | 24600 | 34.6 | 48 | 50 |
| BAYHTR1523BRK Circuit 2 | | 9.60 | 32800 | 40.0 | 50 | 50 | 7.20 | 24600 | 34.6 | 43 | 45 |
| BAYHTR3510LUG | 1/3 | 9.60 | 32800 | 23.1 | 33 | 35 | 7.20 | 24600 | 20.0 | 29 | 30 |
| BAYHTR3517LUG | 1/3 | 14.40 | 49100 | 34.6 | 48 | 50 | 10.80 | 36900 | 30.0 | 42 | 45 |

* = Motor Amps

^(a) MCA and MOP for circuit 1 contains the motor amps

Features and Benefits

- Communicating or 24 V control
- Painted metal cabinet with captured foil face insulation
- 2% or less air leakage
- R-4.2 Insulating Value
- Multi-Position UP/Down Flow, Horizontal Left /Right
- ALL Aluminum Coil with Enhanced Patented Coil Fin
- Electric Heaters with polarized plug connections (sold as accessory)
- R-410A Thermal Expansion Valve
- Variable Speed ECM Motor
- Low Voltage Pigtail Connections
- Draw Through Design
- Horizontal Drain Pan
- Single Color
- Fused 24V Power
- **3 year warranty**
- **10-year warranty registered**
- **Optional extended warranty available**



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