## HEAT PUMP AIR HANDLER PERFORMANCE SCHEDULE

* AT 95°F AMBIENT, 80°F DB, 67°F WB
** AT 17°F AMBIENT

| TAG | TOTAL COOLING (MBH)* | SENS. COOLING (MBH)* | TOTAL HEATING (MBH)** | AIRFLOW (CFM) | COND. DRAIN (IN) | SOUND RATING (DB) | WEIGHT (LBS) | REFRIGERANT PIPE SIZE (IN) | | ELECTRICAL REQUIREMENTS | | | CU SYSTEM TAG | BASIS OF DESIGN = MITSUBISHI | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | LIQUID | GAS | MCA | MAX FUSE | V/PH/HZ | | SERVICE | ARRANGEMENT | MODEL |
| SAC-1 | 12.0 | - | - | 425 | 5/8" | 48 | 29 | 1/4" | 1/2" | 1.0 | - | 230/1/60 | SCU-1 | IT CLOSET | WALL MTD | PKA-A12HA6 |
| SAC-2 | 24.0 | - | 18.0 | 775 | 5/8" | 45 | 46 | 3/8" | 5/8" | 1.0 | - | 230/1/60 | SCU-2 | ATM LOBBY | WALL MTD | PKA-A24KA6 |
| SAC-3 | 9.0 | - | 10.9 | 399 | 5/8" | 43 | 22 | 1/4" | 1/2" | 1.0 | - | 230/1/60 | SCU-3 | CARRIAGE HOUSE OFFICES | WALL MTD | MSZ-GE09NA |

## HEAT PUMP CONDENSING UNIT PERFORMANCE SCHEDULE

* AT 95°F AMBIENT, 80°F DB, 67°F WB
** AT 17°F AMBIENT

| TAG | TOTAL COOLING (MBH)* | TOTAL HEATING (MBH)** | REFRIGERANT | APPROX. REFRIG. CHARGE | MINIMUM AMBIENT TEMP(°F) | DIMENSION (INCHES) (HxWxD) | OPERATING WEIGHT (LBS) | ELECTRICAL REQUIREMENTS | | | BASIS OF DESIGN = MITSUBISHI | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | MCA | MAX FUSE | V/PH/HZ | COMP. STAGING | SOUND (BEL) | SERVICE | MODEL |
| SCU-1 | 12.0 | - | R-410A | - | -20°F | 24x31x12 | 82 | 13 | 15 | 230/1/60 | 50%-100% | - | IT CLOSET | PUY-A12NHA6 |
| SCU-2 | 24.0 | 18.0 | R-410A | - | 12°F | 38x38x13 | 165 | 18 | 30 | 230/1/60 | 57%-100% | - | ATM LOBBY | PUZ-A24NHA6 |
| SCU-3 | 20.0 | 22.0 | R-410A | - | -13°F | 42x38x13 | 190 | 29 | 40 | 230/1/60 | 29%-100% | - | CH OFFICES | MXZ-2C20NA* |

* - UNIT SHALL PROVIDE 100% OF RATED HEATING CAPACITY TO 5°F AND 80% OF RATED HEATING CAPACITY TO -13°F

## FAN PERFORMANCE SCHEDULE

| TAG | AIRFLOW (CFM) | T.S.P (IN.WG) | NOISE (SONES) | RPM | DRIVE | ELECTRICAL REQUIREMENTS | | | | | BASIS OF DESIGN = PANASONIC | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | HP | BHP | WATTS | AMPS | V/PH/HZ | SERVICE | ARRANGEMENT | MODEL |
| EF-1 | 110/30 | 0.25 | 0.4 | - | DIRECT | - | - | 9.8 | 0.2 | 120/1/60 | BATHROOMS (MULTIPLE) | CEILING | FV-05-11VKL1 |

* - PROVIDE WITH FV-V515VK1 MODULE

## ELECTRIC WATER HEATER PERFORMANCE SCHEDULE

| TAG | STORAGE (GAL) | 1st. HR RATE (GAL) | REC'VRY. @ 90°F RISE | ELECTRICAL REQUIREMENTS | | BASIS OF DESIGN = AO SMITH | |
|---|---|---|---|---|---|---|---|
| | | | | WATTS | V/PH/HZ | SERVICE | MODEL |
| EWH-1 | 30 | 40 | 20 | 4500/4500* | 208/1/60 | DOM. HW | DEL-30 |
| EWH-2 | 25 | 40 | 20 | 1500 | 208/1/60 | DOM. HW | EJC-2 |

* - WIRED FOR NON-SIMULTANEOUS OPERATION

## TEMPERATURE MIXING VALVE PERFORMANCE SCHEDULE

| TAG | FLOW RATE (GPM) | INLET CONNECTION (INCHES) | OUTLET CONNECTION (INCHES) | W.P.D (PSIG) | SET POINT (DEGREES F) | PROVIDE SPARE CARTRIDGE (Y) OR (N) | BASIS OF DESIGN = SYMMONS | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | SERVICE | ARRANGEMENT | MODEL |
| TMV-1 | 1.0 | 1/2" | 1/2" | 6.0 | 110°F | Y | DOM HW (EWH-1) | WALL | T-102-W |

## PLUMBING FIXTURE CONNECTION SCHEDULE

| TAG | DESCRIPTION | SAN | VENT | CW | HW |
|---|---|---|---|---|---|
| P-1 | TANK TYPE WATER CLOSET | 3" | 2" | 1/2" | - |
| P-1A | ADA TANK TYPE WATER CLOSET | 3" | 2" | 1/2" | - |
| P-2 | COUNTERTOP LAVATORY | 1-1/2" | 1-1/2" | 1/2" | 1/2" |
| P-2A | ADA WALL HUNG LAVATORY | 1-1/2" | 1-1/2" | 1/2" | 1/2" |
| P-3 | ADA SINGLE BOWL SS SINK | 1-1/2" | 1-1/2" | 1/2" | 1/2" |

## ELECTRIC BASEBOARD HEATER PERFORMANCE SCHEDULE

| TAG | OUTPUT (MBH) | LENGTH (FT-IN) | MTG.HT. AFF (IN) | ELECTRICAL REQUIREMENTS | | BASIS OF DESIGN = RUNTAL | |
|---|---|---|---|---|---|---|---|
| | | | | KW | V/PH/HZ | SERVICE | MODEL |
| EBB-1 | 5.0 | 10'-0" | * | 1.5 | 208/1/60 | MULTIPLE | EB3-208D |
| EBB-2 | 5.0 | 10'-0" | * | 1.5 | 208/1/60 | MULTIPLE | EB3-208D |
| EBB-3 | 2.0 | 4'-0" | * | 0.6 | 208/1/60 | MULTIPLE | EB3-208D |

* - MOUNTING HEIGHT SHALL BE PER MANUFACTURER'S RECOMMENDATIONS

## ELECTRIC WALL HEATER PERFORMANCE SCHEDULE

| TAG | OUTPUT (MBH) | AIRFLOW (CFM) | MTG.HT. AFF (IN) | ELECTRICAL REQUIREMENTS | | BASIS OF DESIGN = BERKO | |
|---|---|---|---|---|---|---|---|
| | | | | KW | V/PH/HZ | SERVICE | MODEL |
| WH-1 | 10.2 | 100 | 12" | 3.0 | 208/1/60 | MULTIPLE | FRA4024F |

## AIR DEVICE PERFORMANCE SCHEDULE

| TAG | PANEL SIZE(IN) | NECK SIZE(IN) | AIRFLOW (CFM) | S.P.LOSS (IN.WG.) | THROW(L) | Nc | BASIS OF DESIGN - METALAIRE | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | DUCT CONN.(IN) | PATTERN | MODEL |
| A | 24x24 | 6"ø | 100 | 0.05 | - | 25 | SEE DWGS | SEE DWGS | MSE-HC* |
| B | 24x24 | 8"ø | 250 | 0.05 | - | 25 | SEE DWGS | SEE DWGS | MSE-HC* |
| C | 24x24 | 12x12 | 400 | 0.05 | - | 25 | SEE DWGS | SEE DWGS | 5000D |
| D | - | 16x8 | 300 | 0.05 | - | 25 | SEE DWGS | SEE DWGS | 2115 |
| E | - | 12x4 | 150 | 0.05 | - | 25 | SEE DWGS | SEE DWGS | 2215 |
| F | - | 12x12** | 300 | 0.05 | - | 25 | SEE DWGS | SEE DWGS | 2115 |
| AA | - | 20x20 | 900 | 0.05 | - | 25 | SEE DWGS | 1/2", 45° | RHD |
| BB | - | 16x16 | 750 | 0.05 | - | 25 | SEE DWGS | 1/2", 45° | RHD |

* - SET MINIMUM TO 50% OF MAXIMUM
** - MATCH SIZE OF EXISTING SUPPLY GRILLE (FIELD VERIFY)

## MECHANICAL AND PLUMBING SYMBOLS AND ABBREVIATIONS LEGEND

NOTE - USE SYMBOLS AND ABBREVIATIONS AS APPLICABLE FOR THIS MECHANICAL DRAWING SET.
SOME SYMBOLS AND ABBREVIATIONS IN THIS LEGEND MAY NOT APPLY.

| SYMBOL | DESCRIPTION |
|---|---|
| CA | COMPRESSED AIR PIPING (CA) |
| C | CONDENSATE DRAIN PIPING (C) |
| CTR | COOLING TOWER RETURN PIPING (CTR) |
| CTS | COOLING TOWER SUPPLY PIPING (CTS) |
| CWR | CHILLED WATER RETURN PIPING (CWR) |
| CWS | CHILLED WATER SUPPLY PIPING (CWS) |
| FOR | FUEL OIL RETURN PIPING (FOR) |
| FOS | FUEL OIL SUPPLY PIPING (FOS) |
| G | GAS PIPING (G) |
| HWR | HOT WATER RETURN PIPING (HWR) |
| HWS | HOT WATER SUPPLY PIPING (HWS) |
| RL | REFRIGERANT LIQUID PIPING (RL) |
| RG | REFRIGERANT GAS PIPING (RG) |
| | SANITARY PIPING BELOW FLOOR (SAN) |
| | SANITARY PIPING ABOVE FLOOR (SAN) |
| | SANITARY VENT PIPING |
| RWL | RAINWATER LEADER ABOVE SLAB (RWL) |
| | COLD WATER PIPING (CW) |
| | HOT WATER PIPING (HW) |
| | RECIRCULATED HOT WATER PIPING (RHW) |
| | PIPE CAP |
| | DIRECTION OF FLUID FLOW |
| | ELBOW UP |
| | ELBOW DOWN |
| | PIPE TEE UP |
| | PIPE TEE DOWN |
| | PIPE REDUCER |
| | PIPE WITH GUIDE |
| | PIPE WITH ANCHOR |
| | BUTTERFLY VALVE |
| | OS & Y GATE VALVE |

| SYMBOL | DESCRIPTION |
|---|---|
| | BACKFLOW PREVENTER (BFP) |
| | CHECK VALVE |
| | BALANCING VALVE (ADJUSTABLE) |
| | AUTOMATIC FLOW CONTROL VALVE |
| | RELIEF VALVE (RV) |
| | BALL VALVE |
| | BALL VALVE |
| | 3/4" BALL VALVE WITH 3/4" HOSE END |
| | GATE VALVE |
| | PRESSURE REDUCING VALVE |
| | FUSIBLE VALVE |
| | STRAINER W/BLOWDOWN BALL VALVE |
| | 2-WAY CONTROL VALVE |
| | SOLENOID VALVE |
| | 3-WAY CONTROL VALVE |
| | 3-WAY CONTROL VALVE (TOP VIEW) |
| | 4-WAY CONTROL VALVE (TOP VIEW) |
| | 2 BUTTERFLY VALVES W/SINGLE ACTUATOR |
| | BUTTERFLY VALVE W/ACTUATOR |
| | TRIPLE-DUTY VALVE |
| | UNION |
| | PIPE FLANGE |
| | PUMP WITH FLANGES |
| | BASE MOUNTED PUMP |
| | CARTRIDGE TYPE INLINE PUMP |
| | VERTICAL INLINE PUMP |
| FC | FLEXIBLE PIPE CONNECTION (FC) |
| | PITCH DOWN |
| | PETCOCK |
| | CONNECT TO EXISTING |

| SYMBOL | DESCRIPTION |
|---|---|
| L | PRESSURE GAGE WITH GAGE COCK |
| T | THERMOMETER IN WELL |
| F | WATER FLOW SWITCH |
| P | PRESSURE SWITCH OR SENSOR |
| E | EMURSION TEMPERATURE SENSOR |
| SD | DUCT MOUNTED SMOKE DETECTOR |
| R | ROOM TEMPERATURE SENSOR |
| T S | THERMOSTAT OR SENSOR ON WALL |
| T G | TSTAT OR SENSOR W/ TAMPERPROOF GUARD |
| V | MANUAL AIR VENT |
| 2 | NOTE TAG (NUMBER) |
| A 250 | AIR DEVICE TAG (LETTER) WITH CFM |
| 101 | ROOM NUMBER |
| | TURNING VANES |
| | DUCT W/MANUAL DAMPER |
| | DUCT W/FLEXIBLE CONNECTION (FC) |
| | LAGGED DUCT |
| | DUCT W/ACOUSTIC LINING |
| | DUCT W/SQUARE-TO-ROUND TRANSITION |
| | FLEXIBLE DUCT |
| MOD | MOTOR OPERATED DAMPER |
| | AIRFLOW OUT |
| | AIRFLOW IN |
| ϕ | DIAMETER OR FLAT OVAL |
| | FIRE DAMPER |
| | ROUND OR FLAT OVAL DUCT DOWN |
| | ROUND OR FLAT OVAL DUCT UP |
| | SUPPLY DIFFUSER |
| | RETURN GRILLE |
| | STEAM TRAP |
| | WATER HAMMER ARRESTOR |

| ABBREVIATION | DESCRIPTION |
|---|---|
| AAV | AUTOMATIC AIR VENT |
| AD | ACCESS DOOR |
| AFF | ABOVE FINISHED FLOOR |
| AHU-* | AIR HANDLING UNIT TAG |
| AMS | AIRFLOW MONITORING STATION |
| AMPS | AMPERES |
| AP | ACCESS PANEL |
| APD | AIR PRESSURE DROP |
| AS-* | AIR SEPARATOR TAG |
| ATC | AUTOMATIC TEMPERATURE CONTROL |
| B-* | BOILER TAG |
| BD-* | BYPASS DAMPER TAG |
| BFP-* | BACKFLOW PREVENTER TAG |
| BHP | BRAKE HORSEPOWER |
| BTUH | BRITISH THERMAL UNITS PER HOUR |
| CBD | COUNTER BALANCED DAMPER |
| CC-* | COOLING COIL TAG |
| CFM | CUBIC FEET PER MINUTE |
| CHLR-* | CHILLER TAG |
| CO | CLEANOUT |
| CONV-* | CONVECTOR TAG |
| CUH-* | CABINET UNIT HEATER TAG |
| CP-* | CIRCULATING PUMP TAG |
| CT-* | COOLING TOWER TAG |
| Cv | VALVE COEFFICIENT |
| CW | COLD WATER |
| CHWS/R | CHILLED WATER SUPPLY AND RETURN |
| DB | DRY BULB |
| dB RE | DECIBELS RELATIVE TO |
| DC | DOUBLE CHECK |
| DCA | DOUBLE CHECK ATMOSPHERIC |
| DEG F | DEGREES FAHRENHEIT |
| DIA | DIAMETER |
| DIW | DOWN IN WALL |
| DN | DOWN |
| EA | EXHAUST AIR |
| EAT | ENTERING AIR TEMPERATURE |

| ABBREVIATION | DESCRIPTION |
|---|---|
| EDB | ENTERING DRY BULB |
| EDC-* | ELECTRIC DUCT COIL TAG |
| EER | ENERGY EFFICIENCY RATIO |
| EF-* | EXHAUST FAN TAG |
| EFF | EFFICIENCY |
| EG-* | EXHAUST GRILLE TAG |
| ER-* | EXHAUST REGISTER TAG |
| ESP | EXTERNAL STATIC PRESSURE |
| ET-* | EXPANSION TANK TAG |
| EWB | ENTERING WET BULB |
| EWH-* | ELECTRIC WATER HEATER TAG |
| EWT | ENTERING WATER TEMPERATURE |
| EXG | EXISTING |
| EXH | EXHAUST |
| FC | FLEXIBLE CONNECTION |
| FCO | FLOOR CLEANOUT |
| FD | FIRE DAMPER |
| FD-* | FLOOR DRAIN TAG |
| FLA | FULL LOAD AMPS |
| FOR | FUEL OIL RETURN |
| FOS | FUEL OIL SUPPLY |
| FPHB | FROST PROOF HOSE BIBB |
| FPM | FEET PER MINUTE |
| FS-* | FLOOR SINK TAG |
| FT | FEET |
| FTR-* | FINTUBE RADIATION TAG |
| GA. | GAGE |
| GAL | GALLONS |
| GFWH-* | GAS FIRED WATER HEATER TAG |
| GPH | GALLONS PER HOUR |
| GPM | GALLONS PER MINUTE |
| GUH-* | GAS UNIT HEATER TAG |
| HC-* | HEATING COIL TAG |
| HP | HORSEPOWER |
| HRV-* | HEAT RECOVERY VENTILATOR TAG |
| HW | HOT WATER |
| HWS/R | HOT WATER SUPPLY AND RETURN |

| ABBREVIATION | DESCRIPTION |
|---|---|
| I=B=R | INSTITUTE OF BOILER AND RADIATOR MANUFACTURERS |
| IFWH-* | INDIRECT FIRED WATER HEATER TAG |
| IN. | INCHES |
| IV-* | INTAKE VENT TAG |
| L-* | LOUVER TAG |
| LAT | LEAVING AIR TEMPERATURE |
| LB | POUNDS |
| LD-* | LINEAR DIFFUSER TAG |
| LTHWS/R | LOW TEMPERATURE HOT WATER |
| LRA | LOCKED ROTOR AMPS |
| LWCO | LOW WATER CUTOUT |
| LWT | LEAVING WATER TEMPERATURE |
| MAX | MAXIMUM |
| MBH | THOUSANDS OF BTU PER HOUR |
| MCA | MINIMUM CIRCUIT AMPACITY |
| MIN | MINIMUM |
| NC | NOISE CRITERION |
| NIC | NOT IN CONTRACT |
| NTS | NOT TO SCALE |
| OA | OUTSIDE AIR |
| OBD | OPPOSED BLADE DAMPER |
| O.D. | OUTSIDE DIAMETER |
| OED | OPEN ENDED DUCT |
| OFUH-* | OIL FIRED WATER HEATER TAG |
| OPD | OVERCURRENT PROTECTIVE DEVICE |
| P-* | PLUMBING FIXTURE TAG |
| PENETN | PENETRATION |
| PF-* | PADDLE FAN TAG |
| PSIA | POUNDS PER SQUARE INCH ABSOLUTE |
| PSIG | POUNDS PER SQUARE INCH GAGE |
| PVC | POLYVINYL CHLORIDE (PIPE) |
| RA | RETURN AIR |
| RD | ROOF DRAIN |
| RDE | RECOMMENDED DUAL ELEMENT FUSE AMPS |
| RG-* | RETURN GRILLE TAG |
| RHW | RECIRCULATED HOT WATER |

| ABBREVIATION | DESCRIPTION |
|---|---|
| RLA | RUNNING LOAD AMPS |
| RPM | REVOLUTIONS PER MINUTE |
| RPS | REVOLUTIONS PER SECOND |
| RPZ | REDUCED PRESSURE ZONE |
| RR-* | RETURN REGISTER TAG |
| RTU | ROOM TEMPERATURE SENSOR |
| RV | RELIEF VALVE |
| RWL | RAINWATER LEADER |
| SA | SUPPLY AIR |
| SAN | SANITARY (DRAIN & WASTE) |
| SD | SMOKE DAMPER |
| SEER | SEASONAL ENERGY EFFICIENCY RATIO |
| SF | SUPPLY FAN |
| SG-* | SUPPLY GRILLE TAG |
| SP | STATIC PRESSURE |
| SP-* | SUMP PUMP TAG |
| SR-* | SUPPLY REGISTER TAG |
| SQFT | SQUARE FEET |
| ΔT | TEMPERATURE DIFFERENTIAL |
| TEMP. | TEMPERATURE |
| TCP | TEMPERATURE CONTROL PANEL |
| TMV-* | THERMOSTATIC MIXING VALVE TAG |
| TSP | TOTAL STATIC PRESSURE |
| TYP | TYPICAL |
| UH-* | UNIT HEATER TAG |
| VAV-* | VARIABLE AIR VOLUME BOX TAG |
| VB | VACUUM BREAKER |
| VFD | VARIABLE FREQUENCY INVERTER DRIVE |
| VTR | VENT THRU ROOF |
| V/PH/HZ | VOLTS/PHASES/HERTZ |
| WB | WET BULB |
| WCO | WALL CLEANOUT |
| WG | WATER GAGE |
| WPD | WATER PRESSURE DROP |
| WSA | WIRE SIZING AMPS |
| WTD | WATER TEMPERATURE DROP |
| W/ | WITH |


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Machias Savings Bank
193 Middle Street, Portland, Maine

Mechanical Schedules and Legend

M2
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project no. -