ESSICK AIR

# RESIDENTIAL & COMMERCIAL EVAPORATIVE COOLERS COMPARISON SHEET

CHAMPION

| ITEM \| MODEL | COOLER TYPE/ MEDIA TYPE | # OF SPEEDS/ CONTROL TYPE | MOTOR H.P. | MAX. SQ. FT. COOLED | LIMITED WAR-RANTY | ADD'L INFO |
|---|---|---|---|---|---|---|
| **39E720 \| CP70**  ETL LISTED | PORTABLE/ RIGID/ | 3 / DIGITAL | 0.093 | 350 | 1 YR | TIMER, OSCILLATE, 6 GAL. CAPACITY |
| **36N459 \| MMBT12**  UL LISTED | MOBILE/ POLYESTER PAD/ | 2/ ANALOG | 1/3 | 600 | 1 YR | POWDER COAT PAINT/ 8 GAL CAPACITY/ WATER HOSE CONN. |
| **36N460 \| MMBT14**  UL LISTED | MOBILE/ POLYESTER PAD/ | 2/ ANALOG | 1/2 | 600 | 1 YR | POWDER COAT PAINT/ 11 GAL CAPACITY/ WATER HOSE CONN. |
| **2YAD8 \| N28W**  UL LISTED | WINDOW/ ASPEN/ | 2/ ANALOG | 1/8 | 400-600 | 1 YR UNIT/ 8 YR BOTTOM PAN | FULLY ASSEMBLED & TESTED |
| **2YAD7 \| N44W**  UL LISTED | WINDOW/ ASPEN/ | 2/ ANALOG | 1/3 | 700-1200 | 1 YR UNIT/ 8 YR BOTTOM PAN | INSTL. KIT INCL./ CONVERT-IBLE GRILLE INSTL. OPTION |
| **2YAD6 \| N46W**  UL LISTED | WINDOW/ ASPEN/ | 2/ ANALOG | 1/3 | 1000-1400 | 1 YR UNIT/ 8 YR BOTTOM PAN | INSTL. KIT INCL./ CONVERT-IBLE GRILLE INSTL. OPTION |
| **2YAD5 \| RN50W**  UL LISTED | WINDOW/ ASPEN/ | 2/ DIGITAL W / REMOTE | 1/2 | 800-1600 | 1 YR UNIT/ 8 YR BOTTOM PAN | INSTL. KIT INCL./ CONVERT-IBLE GRILLE INSTL. OPTION; REMOTE |
| **39E721 \| MCP44**  ETL LISTED | PLASTIC WINDOW/ RIGID/ | 3/ DIGITAL WITH REMOTE | 1/3 | 1600 | 1 YR | UV RESISTANT; SLIM PROFILE; WTR. HOSE CONN. |

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|---|---|---|---|---|---|---|
| **49LW87 \| MCP59**  ETL LISTED | PLASTIC WINDOW/ RIGID/ | 3/ DIGITAL WITH REMOTE | 1/2 | 2000 | 1 YR | UV RESISTANT; SLIM PROFILE; WTR. HOSE CONN. |
| **2YAE5 \| N30S**  UL CLASSIFIED | SIDE DISCHARGE DUCTED/ ASPEN/ | 2 ANALOG | 1/3 | 1000 | 1 YR UNIT/ 8 YR BOTTOM PAN | BOLTED CONSTR.; MOTOR SOLD SEPA-RATELY |
| **2YAE2 \| N31D**  UL CLASSIFIED | DOWN DISCHARGE DUCTED/ ASPEN/ | 2 ANALOG | 1/3 | 1100 | 1 YR UNIT/ 8 YR BOTTOM PAN | BOLTED CONSTR.; MOTOR SOLD SEPA-RATELY |
| **2YAE4 \| N40/45S**  UL CLASSIFIED | SIDE DISCHARGE DUCTED/ ASPEN/ | 2 ANALOG | 1/3 1/2 | 1400 1700 | 1 YR UNIT/ 8 YR BOTTOM PAN | BOLTED CONSTR.; MOTOR SOLD SEPA-RATELY |
| **2YAE1 \| N43/48D**  UL CLASSIFIED | DOWN DISCHARGE DUCTED/ ASPEN/ | 2 ANALOG | 1/3 1/2 | 1500 1800 | 1 YR UNIT/ 8 YR BOTTOM PAN | BOLTED CONSTR.; MOTOR SOLD SEPA-RATELY |
| **2YAE3 \| N55/65S**  UL CLASSIFIED | SIDE DISCHARGE DUCTED/ ASPEN/ | 2 ANALOG | 1/2 3/4 | 2000 2300 | 1 YR UNIT/ 8 YR BOTTOM PAN | BOLTED CONSTR.; MOTOR SOLD SEPA-RATELY |
| **2YAD9 \| N56/66D**  UL CLASSIFIED | DOWN DISCHARGE DUCTED/ ASPEN/ | 2 ANALOG | 1/2 3/4 | 210 2400 | 1 YR UNIT/ 8 YR BOTTOM PAN | BOLTED CONSTR.; MOTOR SOLD SEPA-RATELY |

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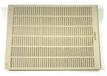
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **453D80 \| 4000RLD4**  UL CLASSIFIED | LOW PROFILE/ DOWN DIS-CHARGE/ 4" RIGID CELLULOSE | 2/ CONNECTS TO THERMO-STAT | 3/4 | 1605 | 1 YR UNIT/ 8 YR BOTTOM PAN | LOW PROFILE DESIGN/ STANDARD MODEL/ UP TO 90% EFFICIENCY | **2YAE8 \| ADA5112**  UL CLASSIFIED | SINGLE INLET DOWN DIS-CHARGE/ 8" RIGID CELLULOSE | 2/ CONNECTS TO THERMO-STAT | 1/3<br>1/2<br>3/4 | 1100<br>1400<br>1650 | 1 YR UNIT/ 5 YR MEDIA | HIGH EFFICIENCY, RUST FREE THERMO-PLASTIC RESERVOIR; MOTOR SOLD SEPA-RATELY |
| **453D81 \| 4000CRLD4**  UL CLASSIFIED | LOW PROFILE/ DOWN DIS-CHARGE/ 4"RIGID CELLULOSE | 2/ ANALOG: THER-MOSTAT INCLUDED | 3/4 | 1605 | 1 YR UNIT/ 8 YR BOTTOM PAN | LOW PROFILE DESIGN/ CONTRAC-TOR MODEL UP TO 90% EFFICIENCY | **2YAE7 \| ASA7112**  UL CLASSIFIED | SINGLE INLET SIDE DIS-CHARGE/ 12" RIGID CELLULOSE | 2/ CONNECTS TO THERMO-STAT | 1/2<br>3/4<br>1 | 1700<br>2000<br>2300 | 1 YR UNIT/ 5 YR MEDIA | HIGH EFFICIENCY, RUST FREE THERMO-PLASTIC RESERVOIR; MOTOR SOLD SEPA-RATELY |
| **2YAF4 \| ASA51**  UL CLASSIFIED | SINGLE INLET SIDE DIS-CHARGE/ 8" RIGID CELLULOSE | 2/ CONNECTS TO THERMO-STAT | 1/3<br>1/2<br>3/4 | 1100<br>1400<br>1650 | 1 YR UNIT/ 5 YR MEDIA | HIGH EFFICIENCY, RUST FREE THERMO-PLASTIC RESERVOIR; MOTOR SOLD SEPA-RATELY | **2YAE6 \| ADA7112**  UL CLASSIFIED | SINGLE INLET DOWN DIS-CHARGE/ 12" RIGID CELLULOSE | 2/ CONNECTS TO THERMO-STAT | 1/2<br>3/4<br>1 | 1700<br>2000<br>2300 | 1 YR UNIT/ 5 YR MEDIA | HIGH EFFICIENCY, RUST FREE THERMO-PLASTIC RESERVOIR; MOTOR SOLD SEPA-RATELY |
| **2YAF3 \| ADA51**  UL CLASSIFIED | SINGLE INLET SIDE DIS-CHARGE/ 8" RIGID CELLULOSE | 2/ CONNECTS TO THERMO-STAT | 1/3<br>1/2<br>3/4 | 1100<br>1400<br>1650 | 1 YR UNIT/ 5 YR MEDIA | HIGH EFFICIENCY, RUST FREE THERMO-PLASTIC RESERVOIR; MOTOR SOLD SEPA-RATELY | **5FTT7 \| 75/85SD**  UL LISTED* | COMMER-CIAL ASPEN SIDE DRAFT | *DEPEND-ING ON INSTL. | 3/4<br>1 | CFM (IND STD)<br>5905<br>6498 | 1 YR UNIT/ 5 YR ORIG. COM-PO-NENTS. | MEETS SEVERAL ASTM TEST STDS/. SINGLE POINT CONN. |
| **2YAF2 \| ASA71**  UL CLASSIFIED | SINGLE INLET SIDE DIS-CHARGE/ 8" RIGID CELLULOSE | 2/ CONNECTS TO THERMO-STAT | 1/2<br>3/4<br>1 | 1700<br>2000<br>2300 | 1 YR UNIT/ 5 YR MEDIA | HIGH EFFICIENCY, RUST FREE THERMO-PLASTIC RESERVOIR; MOTOR SOLD SEPA-RATELY | **5FTT6 \| 75/85DD**  UL LISTED* | COMMER-CIAL ASPEN DOWN DRAFT | *DEPEND-ING ON INSTL. | 3/4<br>1 | CFM (IND STD)<br>6074<br>6085 | 1 YR UNIT/ 5 YR ORIG. COM-PO-NENTS. | MEETS SEVERAL ASTM TEST STDS/. SINGLE POINT CONN. |
| **2YAF1 \| ADA71**  UL CLASSIFIED | SINGLE INLET SIDE DIS-CHARGE/ 8" RIGID CELLULOSE | 2/ CONNECTS TO THERMO-STAT | 1/2<br>3/4<br>1 | 1700<br>2000<br>2300 | 1 YR UNIT/ 5 YR MEDIA | HIGH EFFICIENCY, RUST FREE THERMO-PLASTIC RESERVOIR; MOTOR SOLD SEPA-RATELY | **5FTT5 \| 14/21SD**  UL LISTED* | COMMER-CIAL ASPEN SIDE DRAFT | *DEPEND-ING ON INSTL. | 1-1/2<br>2<br>3<br>5 | CFM (IND. STD)<br>12386<br>13633<br>15606<br>18502 | 1 YR UNIT/ 5 YR ORIG. COM-PO-NENTS. | MEETS SEVERAL ASTM TEST STDS/ SINGLE POINT CONN. |
| **2YAE9 \| ASA5112**  UL CLASSIFIED | SINGLE INLET DOWN DIS-CHARGE/ 8" RIGID CELLULOSE | 2/ CONNECTS TO THERMO-STAT | 1/3<br>1/2<br>3/4 | 1100<br>1400<br>1650 | 1 YR UNIT/ 5 YR MEDIA | HIGH EFFICIENCY, RUST FREE THERMO-PLASTIC RESERVOIR; MOTOR SOLD SEPA-RATELY | **F5TT4 \| 14/21DD**  UL LISTED* | COMMER-CIAL ASPEN DOWN DRAFT | *DEPEND-ING ON INSTL. | 1-1/2<br>2<br>3<br>5 | CFM (IND. STD)<br>13245<br>14607<br>16711<br>19806 | 1 YR UNIT/ 5 YR ORIG. COM-PO-NENTS. | MEETS SEVERAL ASTM TEST STDS/ SINGLE POINT CONN. |

ALL UNITS BUILT IN USA OF DOMESTIC AND IMPORTED COMPONENTS,
EXCEPT CP70, BUILT IN CHINA.

# COOLER PARTS AND MEDIA PADS

| ITEM \| MODEL | DESCRIPTION | ITEM \| MODEL | DESCRIPTION | ITEM \| MODEL | DESCRIPTION |
|---|---|---|---|---|---|
| **246M12 \| 324007-105**  | LOUVER ASSY AND PADS FITS: WC44/WC46/ WC50/4001DD | **35LX47 \| MCP44-PAD**  | REPLACEMENT PAD SET FITS MCP-44, MCP59 | **6FFJ7 \| 110440**  | RE-CIRCULATING PUMP 0.75A, 230 V, 240 V |
| **246M13 \| 324008-303**  | LOUVER ASSY AND PAD SET FITS N55/65S / 500DD/SD | **6FFHO \| 110465-9**  | MOTOR: CWSE, BASE 3 HP, 3 PHASE | **6FFJ9 \| CM120B**  | PURGE PUMP, 120V "CLEAN MACHINE" |
| **36VG06 \| 110087**  | ASPEN PAD 13 X 21 IN. FITS N28W / WCM28 | **6FFH1 \| 110466-9**  | MOTOR: 208 TO 230/460 VOLTS | **36VG27 \| 110441-2**  | MOTOR 1/3 HP SINGLE SHAFT |
| **36VG07 \| 110088**  | ASPEN PAD 20-1/2 X 21 IN. FITS N28W / WCM28 | **6FFH3 \| 110461**  | MOTOR, BASE CWSE | **36VG28 \| 110441-C**  | MOTOR 1/8 HP DUAL SHAFT |
| **36VG08 \| 110091**  | ASPEN PAD 22 X 27 IN. FITS WC37/N30S/ N31D/3000SD | **6FFH5 \| 110290**  | V-BELT PULLEY,7/8" Vr PITCH 3.25" OD IRON | **38G223 \| 110423-2**  | MASTERSTAT DIGITAL THERMOSTAT FOR EVAP. COOLERS |
| **36VG10 \| 110096**  | ASPEN PAD 35 X 24-1/2 IN. FITS 75/85SD/DD | **6FFH6 \| 110291**  | V-BELT PULLEY 1-1/8" Vr PITCH 3.5" O.D. IRON | **36VG11 \| 110428**  | 5500 CFM PUMP |
| **24TM13 \| 110098**  | ASPEN PAD 27-1/2 X 27-3/4 IN. FITS: N40/45S N43/48D | **6FFH7 \| 110290**  | V-BELT PULLEY 5/8" Vr PITCH 3.5" O.D., IRON | **36VG12\| 110429**  | 7500 CFM PUMP |
| **36VG17 \| 110124-3**  | POLYESTER PAD SET 15.5 X 24 IN. FITS MMBT12 | **6FFH8 \| 110279-003**  | V-BELT PULLEY 5/8" Vr PITCH 4"O.D., IRON | **36VG13 \| 110448**  | 3/4 HP 1 SPEED MOTOR |
| **36VG19 \| 110124-5**  | POLYESTER PAD SET 21.5 X 27.25 IN. FITS MMBT14 | **6FFH9 \| FL-3/8**  | FLOAT VALVE ASSEMBLY, WITH 3/8 CONNECTOR | **36F740\| 110358**  | BEARING WITH OIL CAP |
| **36VG22 \| 110132-3**  | RIGID MEDIA 2 X 15-3/4 X 15 IN. FITS CP70 | **6FFJ0 \| 310587**  | BLEED OFF KIT, PLASTIC | **35LX47 \| MCP44-PPK**  | PURGE PUMP KIT EXCLU-SIVELY FOR MCP44 AND MCP59 COOLERS |
| **36VG23 \| 110133-1**  | UNIVERSAL RIGID MEDIA 8 IN. DEPTH FOR SMALL COOLERS | **6FFJ1 \| 110467**  | RE-CIRCULATING PUMP 1.2A, 115 V | **35LX48 \| MCP44-EC**  | PROTECTIVE EXTERNAL COVER FOR MCP SERIES COOLERS |
| **36VG24 \| 110133-2**  | UNIVERSAL RIGID MEDIA 8 IN. DEPTH FOR LARGE COOLERS | **6FFJ2 \| 110468**  | RE-CIRCULATING PUMP 0.85A, 230V | **35LX49 \| MCP44-IC**  | INTERNAL GRILLE COVER FOR MCP SERIES COOL-ERS |
| **36VG25 \| 110133-3**  | UNIVERSAL RIGID MEDIA 12 IN. DEPTH FOR SMALL COOLERS | **6FFJ3 \| 110467-1**  | RE-CIRCULATING PUMP 115 V, 1.2 A | | |
| **36VG26 \| 110133-4**  | UNIVERSAL RIGID MEDIA 12 IN. DEPTH FOR LARGE COOLERS | **6FFJ4 \| 110468-1**  | RE-CIRCULATING PUMP 0.85A, 230 V | | |

# ABOUT EVAPORATIVE COOLING

For those not familiar with hot, arid climates, evaporative cooling may sound like a new concept, but actually this is the oldest method of cooling known, going back as far as ancient Egypt. The principles in evaporative cooling are simple: changing liquid water to water vapor using the latent heat of the air, the same effect as when you step out of a swimming pool and the air cools your skin.

This simple but highly effective means of cooling can be used in your home. A fan draws the hot, dry air into the cooler where it passes through water-saturated pads and the moisturized, cooled air is dispersed into the room. Proper air flow is critical to ensure the whole interior area is adequately cooled by this method.

ADVANTAGES: This naturally green technology uses no environmentally harmful chemicals and because there is no compressor, evaporative cooling uses up to 75% less electricity than DX (refridgerated) air conditioning. Since fresh outside air is continually pulled in, there is no stale air build up inside, improving your indoor air quality. With a purge pump installed, water usage can be controlled to release periodically to maintain freshness and reduce mineral build up on the media pads. Additionally, the released water can be routed to a garden or green area increasing the advantages.

DISADVANTAGES: The biggest disadvantage of evaporative cooling is that it doesn't work everywhere. This method of cooling can only reduce air temperatures if the air is dry. In areas where relative humidity raises during the day evaporative cooling offers only limited help. In the continental US, less than half of the country is suitable for this type of cooling.

OVERALL: For all the efforts made in increasing energy efficiency, few things can rival evaporative cooling in providing cooling comfort in hot, dry areas for a low price, but if the locale and relative humidity are not within a limited range, evaporative cooling, by itself, will not be an acceptable option. An excellent solution is to use evaporative cooling in the morning when humidity is low, and DX air conditioning for the hottest part of the day. The energy bills for a mixed system will still be much lower than the DX air conditioning system alone. Choose the best of both worlds.

# TYPES OF EVAPORATIVE COOLERS

Evaporative cooling technology is simple and basically consists of wind and water. The mechanisms of evaporative cooling remain the same, but size and application vary in today's market.

Apart from personal and portable evaporative coolers, most units are built to cool a room or whole house. Water is pumped over the media pads to keep them saturated and a blower wheel fan blows the cooled air into the duct.

There are a couple of significant design differences in the most common types of home coolers: the number of air inlets and the type of media pads. The less expensive whole house coolers have 3 or 4 louvered sides to draw in air through the saturated aspen pads, then depending on the duct configuration and placement of the unit, the cooled air is pushed out the side or directly down to the area for cooling. The motor size and pad area are the biggest factors in how much temperature cooling takes place.

The second most common type of whole house evaporative cooler is called Single Inlet style. Because air is pulled in through only one side, a larger size motor is typically used than in aspen units, producing greater air flow, measured in CFM (cubic feet per minute). These type units use a very different media pad made of several inch deep honeycomb cellulose material. This pad absorbs and retains water longer than aspen for exceptional cooling power. The combination of stronger air flow and media surface can provide saturation efficiencies up to 90%, translating into significantly lower temperatures.

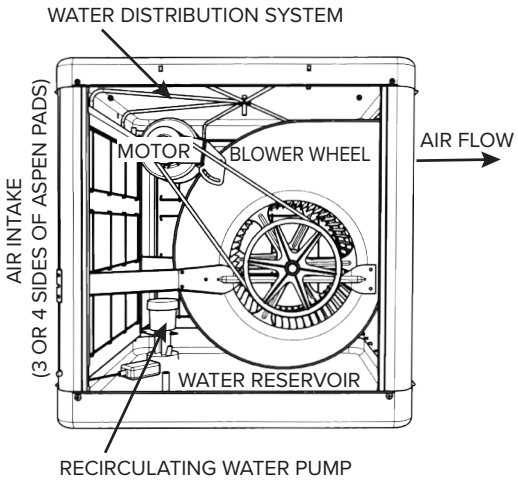
Beyond these design differences, the most important factor in determining how effective evaporative coolers will be is the geographic zone you live in:

Zone 1 - Highly Effective

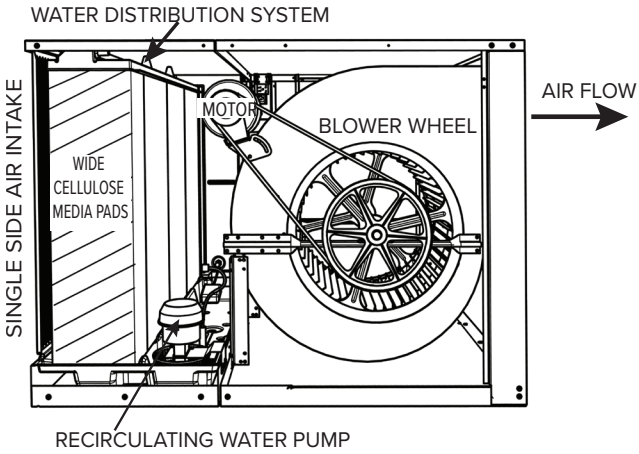
Zone 2 - Effective

Zone 3 - Somewhat Effective


## ASPEN COOLER




## SINGLE INLET RIGID MEDIA COOLER

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