

Hallmark ECM



OIL-FIRED WARM AIR FURNACES

ECM Hybrid Synergy System

The Hallmark ECM features an advanced, variable-speed ECM blower motor technology that automatically adjusts to heating/cooling system airflow and temperature demands ... resulting in more consistent home temperatures and humidity, quieter operation, and significant energy and cost savings when compared to conventional PSC blowers:

- 2-Stage Cooling, 2-Stage Heat Pump
- Consistent Room Temperatures
- Improved Home Air Quality
- Automatic Airflow Adjustment



The Hallmark's controls allow for easy optimization of your heating and cooling system

- Electrical Outlet with On/Off Switch
- Lower Energy Consumption and Utility Bills →

- Front and Rear Flue Option
- Kiln-Fired Ceramic Combustion Chamber
- Generous 11" x 17" Cleaning Access
- Standard Controls (No Circuit Boards)
- 14-Gauge Heat Exchanger with Stainless Steel Lining
- Lifetime Limited Warranty
- Choice of 3 Burners:



Riello



Carlin



Beckett



| HEATING ELECTRICAL CONSUMPTION COMPARISON | | | | | |
|---|--------|----------|--------|----------|------|
| COST PER KW | ECM | ECM COST | PSC | PSC COST | NET |
| \$0.12 | 377 KW | \$45 | 820 KW | \$98 | \$53 |
| \$0.14 | 377 KW | \$53 | 820 KW | \$115 | \$62 |
| \$0.16 | 377 KW | \$60 | 820 KW | \$131 | \$71 |

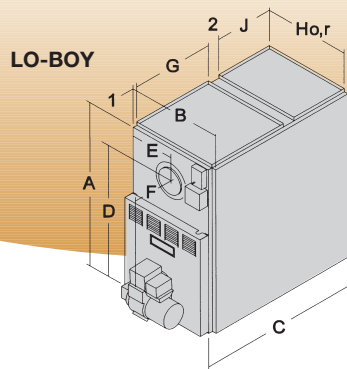
| "CONSTANT FAN" ELECTRICITY CONSUMPTION | | | | |
|--|-----------|-----------|-----------|------------|
| COST PER KW | ECM | PSC | SAVINGS | SAVINGS/HR |
| \$0.12 | 200 watts | 900 watts | 700 watts | \$0.08 |
| \$0.14 | 200 watts | 900 watts | 700 watts | \$0.10 |
| \$0.16 | 200 watts | 900 watts | 700 watts | \$0.11 |

| ANNUAL ENERGY SAVINGS* | | | | | |
|--------------------------------|--------------|-----------------|-----------------|----------------------|---------------|
| REGION | COST PER KWH | HEATING SAVINGS | COOLING SAVINGS | CONSTANT FAN SAVINGS | TOTAL SAVINGS |
| CT, MA, ME, NH, NY, RI, VT, | \$0.16 | \$71 | \$36 | \$458 | \$565 |
| DC, DE, MD, NC, NJ, PA, SC, VA | \$0.12 | \$53 | \$35 | \$333 | \$421 |

With AFUE efficiencies up to 82.6% and its remarkable ECM motor, a Hallmark ECM furnace costs less to operate than a standard PSC-motor oil furnace.

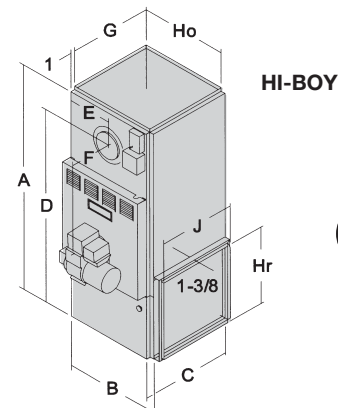
The amount of your electrical savings will depend on your motor use and market location, but the tables at left show typical comparisons of PSC and ECM types of furnaces.

*These are conservative estimates. Some customers have experienced even greater savings. Your actual electricity savings will vary depending on local weather and home characteristics.



Hallmark ECM

Oil-Fired Warm Air Furnace SPECIFICATIONS



| FURNACE | | | | | | | | |
|--|----------------------|-------------------|------------------------|-------------------|----------------------|-------------------|----------------------|-------------------|
| Furnace Type | Lo-Boy* | | | | Hi-Boy | | | |
| Model | LBD 85 | | LBD 115 | | HBD 85 | | HBD 115 | |
| Cabinet Height (A) | 42" | | 45" | | 55" | | 60" | |
| Cabinet Width (B) | 23" | | 24" | | 23" | | 24" | |
| Cabinet Depth (C) | 38" | | 42" | | 22" | | 22" | |
| Centerline - Flue to Floor (D) | 35-1/2" | | 38-1/2" | | 48-1/2" | | 53-1/2" | |
| Centerline - Flue to Side (E) | 11-1/2" | | 12" | | 11-1/2" | | 12" | |
| Burner Housing Depth (F) | 10" | | 10" | | 10" | | 10" | |
| Warm Air Supply Depth (G) | 20" | | 20" | | 20" | | 20" | |
| Warm Air Supply Width (Ho) | 21" | | 22" | | 21" | | 22" | |
| Return Air Supply Width (Hr) | 21" | | 22" | | 15" | | 18-7/8" | |
| Return Air Supply Depth (J) | 14-1/8" | | 18-1/8" | | 18-7/8" | | 18-7/8" | |
| Flue Size | 6" | | 6" | | 6" | | 6" | |
| Filter Size | 16" x 20" | | 20" x 20" | | 16" x 20" | | 20" x 20" | |
| Blower Size | 100-10DD | | 100-10DD | | 100-10DD | | 100-10DD | |
| Shipping Weight | 385 lbs. | | 435 lbs. | | 350 lbs. | | 400 lbs. | |
| B.T.U.H. Input | 105,000 | | 140,000 | | 105,000 | | 140,000 | |
| B.T.U.H. Output | 88,000 | | 115,000 | | 70,000 | | 114,000 | |
| Beckett AFG Nozzle @ 100psi | .65 80°A | | .85 80°A | | .65 80°A | | .85 80°A | |
| Riello 40 Nozzle @ 150psi | .65 60°W | | .85 60°W | | .65 60°W | | .85 60°W | |
| Carlin EZ-1 Nozzle @ 100psi | .65 70°W | | .85 70°B | | .65 70°W | | .85 70°B | |
| AFUE Seasonal Efficiency | 82.6% | | 80.0% | | 81.4% | | 80.7% | |
| "HYBRID SYNERGY" ECM BLOWER MOTOR | | | | | | | | |
| Horsepower/Speed | | | 3/4 HP, Variable Speed | | | | | |
| Heating CFM | 1000 | 1150 | 1350 | 1500 | 1000 | 1150 | 1350 | 1500 |
| Burner-installed Nozzle GPH | 0.55 | 0.65 ¹ | 0.75 | 0.85 ¹ | 0.55 | 0.65 ¹ | 0.75 | 0.85 ¹ |
| Continuous Air Flow CFM | 400-700 ² | | 400-800 ² | | 400-700 ² | | 400-800 ² | |
| Cooling CFM @ 2 tons | 800 | | 800 | | 800 | | 800 | |
| Cooling CFM @ 2.5 tons | 1000 | | 1000 | | 1000 | | 1000 | |
| Cooling CFM @ 3 tons | 1200 | | 1200 | | 1200 | | 1200 | |
| Cooling CFM @ 3.5 tons | 1400 | | N/A | | 1400 | | N/A | |
| Cooling CFM @ 4 tons | N/A | | 1600 | | N/A | | 1600 | |

¹ As shipped burner-installed nozzle

² Based on 50% of selected cooling air flow

400 CFM = 1 ton. Additional specifications available on request.

HLMRK-2.5m-11/09-BP

