Gas Fired, Direct Vent or Induced Draft, Cast Iron Water Boiler

• 85% AFUE
• Electronic ignition
• Easy, intelligent IQ Control System™
• Outdoor reset available – increases efficiency by 15-20%
• 60 – 243 MBH (7 sizes)
• Ideal for installations where chimney venting is not possible, industry standard tapping locations permit ease of replacement for thousands of existing boiler installations
• Rear jacket panel of boiler is flat with no protrusions, simplifies transport and enables flush installations
• Reliable, American-made cast iron heat exchanger
• Lifetime limited warranty

Intelligent Hydronic Control
• Consists of the Intelligent Hydronic Control and IQ Option Panel
• Provides fast and easy “out of the box” installation
• Simple codes convey boiler status and eliminate guesswork
• Combines aquastat, relay, and other ignition functions into a single module
• Two customizable integrated switching relays for easy integration of additional heating zone or indirect water heater

IQ Option Panel
• Enables the easy plug & play installation of optional features such as outdoor reset, LWCO, and high limit

Optional Touchscreen
• LCD displays all boiler settings, diagnostics, and troubleshooting in sentences, not codes
ESC: Technical Information

**Standard Equipment**
- Insulated sleek, modern jacket
- Heavy gauge 1” base insulation
- Intelligent Hydronic Control – Simple self-diagnostic control system with 3-digit readout for status settings and errors
- IQ Option Panel, accepts plug & play IQ Option Cards for
  - Outdoor reset with DHW priority
  - Auto or manual reset low water cutoff
  - Auto auxiliary high limit
- Step-opening redundant gas valve
- Stainless steel burner tubes
- Stainless steel flue gas baffles
- Spark ignition with continuous retry
- User-friendly wiring with 120V J-box
- Taco 007 circulator with piping with wiring harness
- Cast iron section assembly
- Differential vent pressure switch
- Boiler drain valve
- Cast iron supply manifold with safety relief valve tapping

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**ESC Ratings & Specifications**

<table>
<thead>
<tr>
<th>Model</th>
<th>AFUE%</th>
<th>Input (MBH)</th>
<th>DOE Heating Capacity (MBH)</th>
<th>Net AHRI Water Rating (MBH)</th>
<th>Vent Size (Inches)</th>
<th>Approx. Shipping Weight (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESC-3*</td>
<td>85.5</td>
<td>60</td>
<td>52</td>
<td>45</td>
<td>3</td>
<td>250</td>
</tr>
<tr>
<td>ESC-4*</td>
<td>85.4</td>
<td>91</td>
<td>78</td>
<td>68</td>
<td>3</td>
<td>300</td>
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<tr>
<td>ESC-5*</td>
<td>85.3</td>
<td>121</td>
<td>104</td>
<td>90</td>
<td>3</td>
<td>350</td>
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<tr>
<td>ESC-6*</td>
<td>85.2</td>
<td>152</td>
<td>130</td>
<td>113</td>
<td>3</td>
<td>410</td>
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<tr>
<td>ESC-7*</td>
<td>85.0</td>
<td>182</td>
<td>156</td>
<td>136</td>
<td>3</td>
<td>460</td>
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<tr>
<td>ESC-8</td>
<td>84.5</td>
<td>212</td>
<td>180</td>
<td>157</td>
<td>4</td>
<td>510</td>
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<tr>
<td>ESC-9</td>
<td>84.0</td>
<td>243</td>
<td>206</td>
<td>179</td>
<td>4</td>
<td>560</td>
</tr>
</tbody>
</table>

Available for natural or LP gas
Ratings shown are based on certification to 2,000 ft. For elevations above 2,000 ft, use industry standard derating (4% per 1,000 ft.)
All ESCs are shipped with 30 psi relief valves, MAWP is 50 psi.
Net AHRI Water Ratings shown based on a piping and pickup allowance of 1.15. Consult manufacturer before selecting boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

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**ESC Dimensions & Connections**

<table>
<thead>
<tr>
<th>Model</th>
<th>Width</th>
<th>Height</th>
<th>Depth</th>
<th>Supply</th>
<th>Return</th>
<th>Gas Valve</th>
<th>Relief Valve</th>
<th>Water Content (gal.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESC-3</td>
<td>12-3/4</td>
<td>41</td>
<td>33</td>
<td>1-1/4</td>
<td>1-1/4</td>
<td>1/2</td>
<td>3/4</td>
<td>2</td>
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<tr>
<td>ESC-4</td>
<td>15-1/2</td>
<td>41</td>
<td>33</td>
<td>1-1/4</td>
<td>1-1/4</td>
<td>1/2</td>
<td>3/4</td>
<td>3</td>
</tr>
<tr>
<td>ESC-5</td>
<td>18-1/2</td>
<td>41</td>
<td>33</td>
<td>1-1/4</td>
<td>1-1/4</td>
<td>1/2</td>
<td>3/4</td>
<td>4</td>
</tr>
<tr>
<td>ESC-6</td>
<td>21-1/2</td>
<td>41</td>
<td>33</td>
<td>1-1/4</td>
<td>1-1/4</td>
<td>1/2</td>
<td>3/4</td>
<td>5</td>
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<tr>
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<td>33</td>
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<td>1-1/4</td>
<td>1/2</td>
<td>3/4</td>
<td>6</td>
</tr>
<tr>
<td>ESC-8</td>
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<td>3/4</td>
<td>7</td>
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<tr>
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<td>1-1/4</td>
<td>1/2</td>
<td>3/4</td>
<td>8</td>
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</tbody>
</table>

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**NOTES:**
* Vent pipe minimum clearance to combustible material is (4) inches when vent is installed in a fully enclosed chased application, or (3) inches when vent is installed with at least one side open, similar to a joist bay application
** Add height required to maintain 6” clearance from all breaching components
*** Area of each opening 1 sq. inch for each 1,000 BTUH input – with minimum of 100 sq. Inches. Height of opening should be half the width.

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