

## Light Duty Commercial Upright Energy Saver Electric Water Heater



Photo is of  
LD-50S3-3



Copper Screw Type Immersion Element  
(Incoloy type immersion element available upon request)

### The Light Duty Upright Electric Models Feature:

- **Fully Automatic Controls**—Fast acting surface-mount thermostats for automatic temperature control. Factory installed sensitive manual reset energy cutoff for safety to prevent overheating (Maximum thermostat setting is 160°F).
- **Direct Heat Transfer With Immersed Elements**—Transfers heat directly and efficiently to the water. Screw-in style.
- **Factory Installed Hydrojet® Total Performance System**—Cold water inlet sediment reducing device helps prevent sediment build up in tank. Increases first hour delivery of hot water while minimizing temperature build up in tank.
- **Vitraglas® Lining**—Bradford White tanks are lined with a exclusively engineered enamel formula that provides superior protection from the highly corrosive effects of hot water. This formula (Vitraglas®) is fused to the steel surface by firing at a temperature of over 1600°F.
- **2" Non-CFC Foam Insulation**—Covers the sides and top of tank, reducing the amount of heat loss. This results in less energy consumption, improved operation efficiencies and jacket rigidity.
- **Water Connections**—3/4" NPT factory installed true dielectric fittings extend water heater life and eases installation (LD-120R has 1" NPT dielectric waterway fittings).
- **Factory Installed Heat Traps**—Design incorporates a flexible disk that reduces heat loss in piping and eliminates the potential for noise generation (Except LD-120R).
- **Protective Magnesium Anode Rod**—Provides added protection against corrosion for long trouble-free service.
- **Steel Tank**—Heavy gauge steel automatically formed, rolled and welded.
- **Field Convertible**—Units are shipped from factory Three Phase, Non-Simultaneous (120V and 277V are shipped Single Phase, Non-Simultaneous). All models can be converted to Single Phase and/or Simultaneous operation in the field.
- **Voltages Available**—120V, 208V, 240V, 277V, 480V.
- **T&P Relief Valve Installed**—All models have special tapping on top of tank.
- **Low Restriction Brass Drain Valve**—Durable tamper proof design.



### 3 or 5-Year Limited Tank Warranties / 1-Year Limited Warranty on Component Parts.

For more information on warranty, please visit [www.bradfordwhite.com](http://www.bradfordwhite.com)

For products installed in USA, Canada and Puerto Rico. Some states do not allow limitations on warranties. See complete copy of the warranty included with the heater.

# Commercial Electric Water Heater

## Light Duty Upright Energy Saver Models

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed

| Model Number | Capacity  |           | Recovery 100°F Rise |           | A Floor to Heater Top          | B Jacket Dia. | C Floor to Water Conn.         | D Floor to T&P Conn.            | E Floor to Electrical Access   | Approx. Shipping Weight |
|--------------|-----------|-----------|---------------------|-----------|--------------------------------|---------------|--------------------------------|---------------------------------|--------------------------------|-------------------------|
|              | U.S. Gal. | Imp. Gal. | U.S. GPH*           | Imp. GPH* | in.                            | in.           | in.                            | in.                             | in.                            | lbs.                    |
| LD-30R3-3    | 30        | 25        | 18                  | 15        | 46 <sup>7</sup> / <sub>8</sub> | 18            | 48 <sup>1</sup> / <sub>8</sub> | 47 <sup>9</sup> / <sub>16</sub> | 48 <sup>9</sup> / <sub>4</sub> | 85                      |
| LD-40S3-3    | 40        | 33        | 18                  | 15        | 46 <sup>7</sup> / <sub>8</sub> | 20            | 47 <sup>7</sup> / <sub>8</sub> | 46 <sup>7</sup> / <sub>8</sub>  | 48 <sup>1</sup> / <sub>8</sub> | 103                     |
| LD-50S3-3    | 50        | 42        | 18                  | 15        | 46 <sup>1</sup> / <sub>2</sub> | 22            | 47 <sup>1</sup> / <sub>2</sub> | 46 <sup>1</sup> / <sub>2</sub>  | 47 <sup>3</sup> / <sub>4</sub> | 130                     |
| LD-65R3-3    | 65        | 54        | 18                  | 15        | 59 <sup>1</sup> / <sub>4</sub> | 22            | 60 <sup>1</sup> / <sub>4</sub> | 59 <sup>1</sup> / <sub>4</sub>  | 60 <sup>1</sup> / <sub>2</sub> | 156                     |
| LD-80R3-3    | 80        | 67        | 18                  | 15        | 59 <sup>1</sup> / <sub>4</sub> | 24            | 60 <sup>1</sup> / <sub>4</sub> | 59 <sup>1</sup> / <sub>4</sub>  | 60 <sup>1</sup> / <sub>2</sub> | 183                     |
| LD-120R3-3   | 119       | 99        | 18                  | 15        | 62 <sup>3</sup> / <sub>4</sub> | 28            | 64 <sup>1</sup> / <sub>4</sub> | 62 <sup>1</sup> / <sub>4</sub>  | 64                             | 305                     |

| Model Number | Capacity |               | Recovery 56°C Rise |     | A Floor to Heater Top | B Jacket Dia. | C Floor to Water Conn. | D Floor to T&P Conn. | E Floor to Electrical Access | Approx. Shipping Weight |
|--------------|----------|---------------|--------------------|-----|-----------------------|---------------|------------------------|----------------------|------------------------------|-------------------------|
|              | Liters   | Liters/ Hour* | mm.                | mm. | mm.                   | mm.           | mm.                    | mm.                  | mm.                          | kg.                     |
| LD-30R3-3    | 114      | 68            | 1191               | 457 | 1222                  | 1199          | 1238                   | 39                   |                              |                         |
| LD-40S3-3    | 151      | 68            | 1191               | 508 | 1216                  | 1191          | 1222                   | 47                   |                              |                         |
| LD-50S3-3    | 189      | 68            | 1181               | 559 | 1207                  | 1181          | 1213                   | 59                   |                              |                         |
| LD-65R3-3    | 246      | 68            | 1505               | 559 | 1530                  | 1505          | 1537                   | 71                   |                              |                         |
| LD-80R3-3    | 303      | 68            | 1505               | 610 | 1530                  | 1505          | 1537                   | 83                   |                              |                         |
| LD-120R3-3   | 450      | 68            | 1594               | 711 | 1632                  | 1581          | 1626                   | 138                  |                              |                         |

Specify wattage and voltage when ordering.

Use chart to right for maximum wattages at certain voltages  
For 5 year models, change suffix "3" to "5".

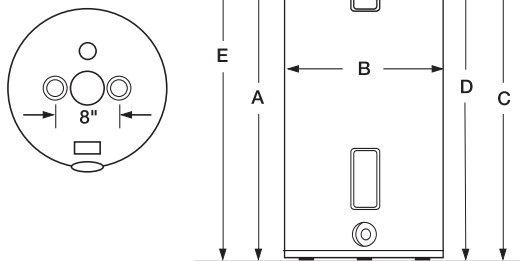
\*Based on 4500W/4500W, Non-Simultaneous operation.

NSF construction not available.

| Wattage | Recovery ▲<br>GPH Temperature Rise °F |    |    |     |     |
|---------|---------------------------------------|----|----|-----|-----|
|         | 60                                    | 80 | 90 | 100 | 120 |
| 1500W   | 10                                    | 8  | 7  | 6   | 5   |
| 2000W   | 14                                    | 10 | 9  | 8   | 7   |
| 2500W   | 17                                    | 13 | 11 | 10  | 9   |
| 3000W   | 21                                    | 15 | 14 | 12  | 10  |
| 3500W   | 24                                    | 18 | 16 | 14  | 12  |
| 4000W   | 28                                    | 21 | 18 | 16  | 14  |
| 4500W   | 31                                    | 23 | 21 | 18  | 15  |
| 5000W   | 34                                    | 26 | 23 | 21  | 17  |
| 5500W   | 38                                    | 29 | 25 | 23  | 19  |
| 6000W   | 41                                    | 31 | 28 | 25  | 21  |

| Wattage Limitations for Non-Simultaneous and Simultaneous Operation | Voltage |      |      |      |      |
|---|---------|------|------|------|------|
|   | 120V    | 208V | 240V | 277V | 480V |
| 1500W / 1500W   | yes     | yes  | yes  | yes  | yes  |
| 2000W / 2000W   | no      | yes  | yes  | yes  | yes  |
| 2500W / 2500W   | no      | yes  | yes  | yes  | yes  |
| 3000W / 3000W   | no      | yes  | yes  | yes  | yes  |
| 3500W / 3500W   | no      | yes  | yes  | no   | no   |
| 4000W / 4000W   | no      | yes  | yes  | yes  | yes  |
| 4500W / 4500W   | no      | yes  | yes  | yes  | yes  |
| 5000W / 5000W   | no      | yes  | yes  | yes  | yes  |
| 5500W / 5500W   | no      | no   | yes  | no   | no   |
| 6000W / 6000W   | no      | no   | no   | yes  | yes  |

▲(GPH based on Non-Simultaneous operation, when Simultaneous operation the GPH will approximately double.)



### General

All models UL and CUL listed. These heaters are wired inter-locking (Non-Simultaneous, Three Phase) 240V with two 4500W elements, unless otherwise specified.

All water and electrical connections are 3/4" NPT (19mm), 120 gallon model has 1" NPT (25mm).

All models certified at 300 psi test pressure (2068 kPa) and 150 psi working pressure (1034 kPa.)

*Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.*



For U.S. and Canada field service, contact your professional installer or local Bradford White sales representative.

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