Lochinvar®
High Efficiency Water Heaters, Boilers and Pool Heaters

# Commercial Electric Hot Water Boilers

## Standard Features

- ASME National Board Registered Pressure Vessel
- Heavy Duty Steel Boiler Vessel Housing
- 3″ Fiberglass Insulation
- Flanged Inlet and Outlet Connection (above 3″)
- ASME Pressure Relief Valve
- Pressure Gauge with Cock
- Drain Valve
- Low Water Cut-Off with Manual Reset
- Adjustable High Limit with Automatic Reset
- Adjustable High Limit with Manual Reset
- Incoloy Sheathed Elements
- Internal Branch Circuit Fusing
- Magnetic Contactors
- Main Supply Circuit Lugs
- 120 Volt Fused Control Transformer
- On/Off Switch with Pilot Light
- Preheat Switch with Pilot Light (above 240 kW)
- Key Locked Door
- On/Off Temperature Switches (1 & 2 Step Models)
- Electronic Multi-Stage Control (3 & 4 Step Models)
- Proportional Solid State Step Control (Units with more than 4 Steps)
- Status Pilot Light for each Step
- Digital Temperature Readout (Except 1 & 2 Step)
- Listed by the Underwriters Laboratories
- 3 Year Limited Tank Warranty / 1 Year Parts Warranty (See warranty for details)

## Optional Equipment

- Alarm Bell
- Automatic Breaker
- Flow Switch
- Fused Disconnect
- Ground Fault Detector
- Low Temperature Switch
- Main Power Disconnect
- Manual Limit Toggle Switches (1 per step)
- Kilowatt/Hour Meter

## Commercial Electric Hot Water Boiler Dimensions & Specifications

***Note 1**: Element removal clearance (R") is equal to 2 times the element kW.*

***Note 2:** Optional equipment may change overall boiler dimensions. Please consult factory for dimensional information.*

| Model Number | Max Input kW | MBH Per Hour | Max # of Elements | Connection Sizes (NPT) In/Out | Connection Sizes (NPT) Drain | Max. Flow GPM | Tank Dims (In) | Data Vol (Gal) | Dimensions (Inches) A | Dimensions (Inches) B | Dimensions (Inches) C | Weight (lbs.) D | Weight (lbs.) Ship | Weight (lbs.) Oper. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BW*16 | 200 | 682 | 10 | 3″ | 1″ | 170 | 16x42 | 30 | 50″ | 32″ | 26″ | 33″ | 750 | 990 |
| BW*16 | 280 | 955 | 14 | 3″ | 1″ | 170 | 16x42 | 30 | 54″ | 32″ | 26″ | 51″ | 800 | 1040 |
| BW*20 | 320 | 1092 | 16 | 4″ FLG | 1″ | 300 | 20x42 | 40 | 30″ | 36″ | 50″ | 51″ | 1000 | 1320 |
| BW*20 | 520 | 1774 | 26 | 4″ FLG | 1-1/4″ | 300 | 20x42 | 40 | 30″ | 36″ | 54″ | 51″ | 1050 | 1370 |
| BW*24 | 600 | 2047 | 30 | 4″ FLG | 1-1/4″ | 470 | 24x44 | 70 | 34″ | 40″ | 52″ | 51″ | 1300 | 1860 |
| BW*24 | 920 | 3139 | 46 | 6″ FLG | 1-1/2″ | 680 | 24x44 | 70 | 34″ | 40″ | 56″ | 63″ | 1500 | 2060 |
| BW*30 | 1560 | 5323 | 78 | 6″ FLG | 1-1/2″ | 900 | 30x48 | 125 | 40″ | 50″ | 60″ | 75″ | 1900 | 2900 |
| BW*36 | 2000 | 6824 | 100 | 8″ FLG | 2″ | 1170 | 36x48 | 165 | 46″ | 56″ | 62″ | 87″ | 2400 | 3720 |
| BW*42 | 3000 | 10236 | 150 | 10″ FLG | 2″ | 1840 | 42x50 | 260 | 54″ | 76″ | 64″ | 77″ | 3600 | 5760 |
| BW*48 | 3600 | 12283 | 180 | 10″ FLG | 2″ | 1840 | 48x52 | 340 | 60″ | 82″ | 66″ | 89″ | 4600 | 7420 |

### 208 & 240 Volt Ratings

| Model Number | Rating MBH | Elements kW | Elements Qty | Number of kW | Number of Cir. | Amps Steps@ kW | Amps (208/3) |
|---|---|---|---|---|---|---|---|
| BW*16-135F | 461 | 135 | 9 | 15 | 9 | 1@15, 4@30 | 376 |
| BW*16-150F | 512 | 150 | 10 | 15 | 10 | 5@30 | 417 |
| BW*16-165F | 563 | 165 | 11 | 15 | 11 | 1@15, 5@30 | 459 |
| BW*16-180F | 614 | 180 | 12 | 15 | 12 | 6@30 | 501 |
| BW*16-195F | 665 | 195 | 13 | 15 | 13 | 1@15, 6@30 | 542 |
| BW*16-210F | 717 | 210 | 14 | 15 | 14 | 7@30 | 584 |
| BW*20-225F | 768 | 225 | 15 | 15 | 15 | 1@15, 7@30 | 626 |
| BW*20-240F | 819 | 240 | 16 | 15 | 16 | 8@30 | 668 |
| BW*20-255F | 870 | 255 | 17 | 15 | 17 | 1@45, 7@30 | 709 |
| BW*20-270F | 921 | 270 | 18 | 15 | 18 | 1@60, 7@30 | 751 |
| BW*20-285F | 972 | 285 | 19 | 15 | 19 | 1@60, 1@45, 6@30 | 793 |
| BW*20-300F | 1024 | 300 | 20 | 15 | 20 | 2@60, 6@30 | 834 |
| BW*20-315F | 1075 | 315 | 21 | 15 | 21 | 2@60, 1@45, 5@30 | 876 |
| BW*20-330F | 1126 | 330 | 22 | 15 | 22 | 3@60, 5@30 | 918 |
| BW*20-345F | 1177 | 345 | 23 | 15 | 23 | 3@60, 1@45, 4@30 | 959 |
| BW-20-360F | 1228 | 360 | 24 | 15 | 24 | 4@60, 4@30 | 1001 |

| Model Number | Rating MBH | Elements kW | Elements Qty | Number of kW | Number of Cir. | Amps Steps@ kW | Amps (208/3) |
|---|---|---|---|---|---|---|---|
| BW*20-375F | 1280 | 375 | 25 | 15 | 25 | 4@60, 1@45, 3@30 | 1043 |
| BW*20-390F | 1331 | 390 | 26 | 15 | 26 | 5@60, 3@30 | 1084 |
| BW*20-405F | 1382 | 405 | 27 | 15 | 27 | 5@60, 1@45, 2@30 | 1126 |
| BW*24-420F | 1433 | 420 | 28 | 15 | 28 | 6@60, 2@30 | 1168 |
| BW*24-435F | 1484 | 435 | 29 | 15 | 29 | 6@60,1@45,1@30 | 1210 |
| BW*24-450F | 1535 | 450 | 30 | 15 | 30 | 7@60,1@30 | 1251 |
| BW*24-465F | 1587 | 465 | 31 | 15 | 31 | 7@60,1@45 | 1293 |
| BW*24-480F | 1638 | 480 | 32 | 15 | 32 | 8@60 | 1334 |
| BW*24-495F | 1655 | 495 | 33 | 15 | 33 | 6@60,1@45,3@30 | 1376 |
| BW*24-510F | 1740 | 510 | 34 | 15 | 34 | 7@60,3@30 | 1418 |
| BW*24-525F | 1791 | 525 | 35 | 15 | 35 | 7@60,8@60,2@30 | 1459 |
| BW*24-540F | 1842 | 540 | 36 | 15 | 36 | 8@60,2@30 | 1501 |
| BW*24-555F | 1894 | 555 | 37 | 15 | 37 | 8@60,1@45,1@30 | 1543 |
| BW*24-570F | 1945 | 570 | 38 | 15 | 38 | 9@60,1@30 | 1584 |
| BW*24-585F | 1996 | 585 | 39 | 15 | 39 | 9@60,1@45 | 1626 |
| BW*24-600F | 2047 | 600 | 40 | 15 | 40 | 10@60 | 1668 |

# Commercial Electric Hot Water Boilers

## 380 & 415 Volt Ratings

| Model Number | Rating MBH | Elements kW | Elements Qty | Number of kW | Number of Cir. | Amps Steps@ kW | Amps (380/3) |
|---|---|---|---|---|---|---|---|
| BW*16-120F | 409 | 120 | 8 | 15 | 4 | 4@30 | 183 |
| BW*16-150F | 512 | 150 | 10 | 15 | 5 | 5@30 | 228 |
| BW*16-180F | 614 | 180 | 12 | 15 | 6 | 6@30 | 274 |
| BW*16-210F | 717 | 210 | 14 | 15 | 7 | 7@30 | 320 |
| BW*20-240F | 819 | 240 | 16 | 15 | 8 | 8@30 | 365 |
| BW*20-270F | 921 | 270 | 18 | 15 | 9 | 1@60, 7@30 | 411 |
| BW*20-300F | 1024 | 300 | 20 | 15 | 10 | 2@60, 6@30 | 456 |
| BW*20-330F | 1126 | 330 | 22 | 15 | 11 | 3@60, 5@30 | 502 |
| BW*20-360F | 1228 | 360 | 24 | 15 | 12 | 4@60, 4@30 | 547 |
| BW*20-390F | 1331 | 390 | 26 | 15 | 13 | 5@60, 3@30 | 593 |
| BW*24-420F | 1433 | 420 | 28 | 15 | 14 | 6@60, 2@30 | 639 |
| BW*24-450F | 1535 | 450 | 30 | 15 | 15 | 7@60, 1@30 | 684 |
| BW*24-480F | 1638 | 480 | 32 | 15 | 16 | 8@60 | 730 |
| BW*24-510F | 1740 | 510 | 34 | 15 | 17 | 7@60, 3@30 | 775 |
| BW*24-540F | 1842 | 540 | 36 | 15 | 18 | 8@60, 2@30 | 821 |
| BW*24-570F | 1945 | 570 | 38 | 15 | 19 | 9@60, 1@30 | 867 |
| BW*24-600F | 2047 | 600 | 40 | 15 | 20 | 10@60 | 912 |
| BW*24-630F | 2150 | 630 | 42 | 15 | 21 | 9@60, 3@30 | 958 |
| BW*24-660F | 2252 | 660 | 44 | 15 | 22 | 10@60, 2@30 | 1003 |
| BW*24-690F | 2354 | 690 | 46 | 15 | 23 | 11@60, 1@30 | 1049 |
| BW*30-720F | 2457 | 720 | 48 | 15 | 24 | 12@60 | 1095 |
| BW*30-750F | 2559 | 750 | 50 | 15 | 25 | 1@90, 11@60 | 1140 |
| BW*30-780F | 2661 | 780 | 52 | 15 | 26 | 2@90, 10@60 | 1186 |
| BW*30-810F | 2764 | 810 | 54 | 15 | 27 | 3@90, 9@60 | 1232 |
| BW*30-840F | 2866 | 840 | 56 | 15 | 28 | 4@90, 8@60 | 1277 |
| BW*30-870F | 2968 | 870 | 58 | 15 | 29 | 5@90, 7@60 | 1323 |
| BW*30-900F | 3071 | 900 | 60 | 15 | 30 | 6@90, 6@60 | 1368 |
| BW*30-930F | 3173 | 930 | 62 | 15 | 31 | 7@90, 5@60 | 1414 |
| BW*30-960F | 3276 | 960 | 64 | 15 | 32 | 8@90, 4@60 | 1459 |
| BW*30-990F | 3378 | 990 | 66 | 15 | 33 | 9@90, 3@60 | 1505 |
| BW*30-1020F | 3480 | 1020 | 68 | 15 | 34 | 10@90, 2@60 | 1551 |
| BW*30-1050F | 3583 | 1050 | 70 | 15 | 35 | 11@90, 1@60 | 1596 |
| BW*30-1080F | 3685 | 1080 | 72 | 15 | 36 | 12@90 | 1642 |
| BW*30-1140F | 3890 | 1140 | 74 | 15 | 38 | 10@90, 4@60 | 1733 |
| BW*36-1200F | 4094 | 1200 | 80 | 15 | 40 | 12@90, 2@60 | 1824 |
| BW*36-1260F | 4299 | 1260 | 84 | 15 | 42 | 14@90 | 1915 |
| BW*36-1320F | 4504 | 1320 | 88 | 15 | 44 | 12@90, 4@60 | 2007 |
| BW*36-1380F | 4709 | 1380 | 92 | 15 | 46 | 14@90, 2@60 | 2098 |
| BW*36-1440F | 4913 | 1440 | 96 | 15 | 48 | 16@90 | 2189 |
| BW*36-1500F | 5118 | 1500 | 100 | 15 | 50 | 14@90, 4@60 | 2280 |
| BW*42-1560F | 5323 | 1560 | 104 | 15 | 52 | 16@90, 2@60 | 2371 |
| BW*42-1620F | 5527 | 1620 | 108 | 15 | 54 | 18@90 | 2462 |
| BW*42-1680F | 5732 | 1680 | 112 | 15 | 56 | 16@90, 4@60 | 2554 |
| BW*42-1740F | 5937 | 1740 | 116 | 15 | 58 | 18@90, 2@60 | 2645 |
| BW*42-1800F | 6142 | 1800 | 120 | 15 | 60 | 20@90 | 2736 |
| BW*42-1860F | 6346 | 1860 | 124 | 15 | 62 | 18@90, 4@60 | 2827 |
| BW*42-1920F | 6551 | 1920 | 128 | 15 | 64 | 20@90, 2@60 | 2918 |
| BW*42-1980F | 6756 | 1980 | 132 | 15 | 66 | 22@90 | 3009 |
| BW*42-2040F | 6960 | 2040 | 136 | 15 | 68 | 20@90, 4@60 | 3101 |
| BW*42-2100F | 7165 | 2100 | 140 | 15 | 70 | 22@90, 2@60 | 3192 |
| BW*42-2160F | 7370 | 2160 | 144 | 15 | 72 | 24@90 | 3283 |
| BW*42-2220F | 7575 | 2220 | 148 | 15 | 74 | 2@120, 22@90 | 3374 |
| BW*42-2280F | 7779 | 2280 | 152 | 15 | 76 | 4@120, 20@90 | 3465 |
| BW*48-2340F | 7984 | 2340 | 156 | 15 | 78 | 6@12, 18@90 | 3557 |
| BW*48-2400F | 8189 | 2400 | 160 | 15 | 80 | 8@12, 16@90 | 3648 |
| BW*48-2460F | 8394 | 2460 | 164 | 15 | 82 | 10@120, 14@60 | 3739 |
| BW*48-2520F | 8598 | 2520 | 168 | 15 | 84 | 12@120, 12@90 | 3830 |
| BW*48-2580F | 8803 | 2580 | 172 | 15 | 86 | 14@120, 10@90 | 3922 |
| BW*48-2640F | 9008 | 2640 | 176 | 15 | 88 | 16@120, 8@90 | 4013 |
| BW*48-2700F | 9212 | 2700 | 180 | 15 | 90 | 18@120, 6@90 | 4104 |

*Notes: For lower KW ratings, please refer to the Compact Boiler.*
*Models above 1600KW are also available in 40KW increments.*

## 480 Volt Ratings

| Model Number | Rating MBH | Elements kW | Elements Qty | Number of kW | Number of Circuits | Steps@ kW | Amps (480/3) |
|---|---|---|---|---|---|---|---|
| BWX20-480F | 1638 | 480 | 24 | 20 | 12 | 4@80.4@40 | 578 |
| BWX20-520F | 1774 | 520 | 26 | 20 | 13 | 5@80.3@40 | 626 |
| BWX24-560F | 1911 | 560 | 28 | 20 | 14 | 6@80.2@40 | 674 |
| BWX24-600F | 2047 | 600 | 30 | 20 | 15 | 7@80.1@40 | 722 |
| BWX24-640F | 2184 | 640 | 32 | 20 | 16 | 8@80 | 770 |
| BWX24-680F | 2320 | 680 | 34 | 20 | 17 | 7@80.3@40 | 818 |
| BWX24-720F | 2457 | 720 | 36 | 20 | 18 | 8@80.2@40 | 867 |
| BWX24-760F | 2593 | 760 | 38 | 20 | 19 | 9@80.1@40 | 915 |
| BWX24-800F | 2730 | 800 | 40 | 20 | 20 | 10@80 | 963 |
| BWX24-840F | 2866 | 840 | 42 | 20 | 21 | 9@80.3@40 | 1011 |
| BWX24-880F | 3003 | 880 | 44 | 20 | 22 | 10@80.2@40 | 1059 |
| BWX24-920F | 3139 | 920 | 46 | 20 | 23 | 11@80.1@40 | 1107 |
| BWX30-960F | 3276 | 960 | 48 | 20 | 24 | 12@80 | 1156 |
| BWX30-1000F | 3412 | 1000 | 50 | 20 | 25 | 1@120.11@80 | 1204 |
| BWX30-1040F | 3548 | 1040 | 52 | 20 | 26 | 2@120.10@80 | 1252 |
| BWX30-1080F | 3685 | 1080 | 54 | 20 | 27 | 3@120.9@80 | 1300 |
| BWX30-1120F | 3821 | 1120 | 56 | 20 | 28 | 4@120.8@80 | 1348 |
| BWX30-1160F | 3958 | 1160 | 58 | 20 | 29 | 5@120.7@80 | 1396 |
| BWX30-1200F | 4094 | 1200 | 60 | 20 | 30 | 6@120.6@80 | 1444 |
| BWX30-1240F | 4231 | 1240 | 62 | 20 | 31 | 7@120.5@80 | 1493 |
| BWX30-1280F | 4367 | 1280 | 64 | 20 | 32 | 8@120.4@80 | 1541 |
| BWX30-1320F | 4504 | 1320 | 66 | 20 | 33 | 9@120.3@80 | 1589 |
| BWX30-1360F | 4640 | 1360 | 68 | 20 | 34 | 10@120.2@80 | 1637 |
| BWX30-1400F | 4777 | 1400 | 70 | 20 | 35 | 11@120.1@80 | 1685 |
| BWX30-1440F | 4913 | 1440 | 72 | 20 | 36 | 12@120 | 1733 |
| BWX30-1480F | 5050 | 1480 | 74 | 20 | 37 | 9@120.5@80 | 1781 |
| BWX30-1520F | 5186 | 1520 | 76 | 20 | 38 | 10@120.4@80 | 1829 |
| BWX30-1560F | 5323 | 1560 | 78 | 20 | 39 | 11@120.3@80 | 1877 |
| BWX36-1600F | 5459 | 1600 | 80 | 20 | 40 | 12@120.2@80 | 1926 |
| BWX36-1680F | 5732 | 1680 | 84 | 20 | 42 | 14@120 | 2022 |
| BWX36-1760F | 6005 | 1760 | 88 | 20 | 44 | 12@120.4@80 | 2119 |
| BWX36-1840F | 6278 | 1840 | 92 | 20 | 46 | 14@120.2@80 | 2215 |
| BWX36-1920F | 6551 | 1920 | 96 | 20 | 48 | 16@120 | 2311 |
| BWX36-2000F | 6824 | 2000 | 100 | 20 | 50 | 14@120.4@80 | 2407 |
| BWX42-2080F | 7097 | 2080 | 104 | 20 | 52 | 16@120.2@80 | 2503 |
| BWX42-2160F | 7370 | 2160 | 108 | 20 | 54 | 18@120 | 2600 |
| BWX42-2240F | 7643 | 2240 | 112 | 20 | 56 | 16@120.4@80 | 2696 |
| BWX42-2320F | 7916 | 2320 | 116 | 20 | 58 | 18@120.2@80 | 2792 |
| BWX42-2400F | 8189 | 2400 | 120 | 20 | 60 | 20@120 | 2888 |
| BWX42-2480F | 8462 | 2480 | 124 | 20 | 62 | 18@120.4@80 | 2985 |
| BWX42-2560F | 8735 | 2560 | 128 | 20 | 64 | 20@120.2@80 | 3081 |
| BWX42-2640F | 9008 | 2640 | 132 | 20 | 66 | 22@120 | 3177 |
| BWX42-2720F | 9281 | 2720 | 136 | 20 | 68 | 20@120.4@80 | 3273 |
| BWX42-2800F | 6554 | 2800 | 140 | 20 | 70 | 22@120.2@80 | 3369 |
| BWX42-2880F | 9827 | 2880 | 144 | 20 | 72 | 24@120 | 3466 |
| BWX42-2960F | 10100 | 2960 | 148 | 20 | 74 | 2@160.22@120 | 3562 |
| BWX42-3040F | 10372 | 3040 | 152 | 20 | 76 | 4@160.20@120 | 3658 |
| BWX48-3120F | 10645 | 3120 | 156 | 20 | 78 | 6@160.18@120 | 3755 |
| BWX48-3200F | 10918 | 3200 | 160 | 20 | 80 | 8@160.16@120 | 3851 |
| BWX48-3280F | 11191 | 3280 | 164 | 20 | 82 | 10@160.14@120 | 3947 |
| BWX48-3360F | 11464 | 3360 | 168 | 20 | 84 | 12@160.12@120 | 4044 |
| BWX48-3440F | 11737 | 3440 | 172 | 20 | 86 | 14@160.10@120 | 4140 |
| BWX48-3520F | 12010 | 3520 | 176 | 20 | 88 | 16@160.8@120 | 4236 |
| BWX48-3600F | 12283 | 3600 | 180 | 20 | 90 | 18@160.6@120 | 4332 |

**FOR EASE IN ORDERING BY MODEL NUMBER**

This is a 208 volt, three phase,1400 Kilowatt full size electric hot water boiler with 30 inch diameter vessel.
Operating temperature and pressure are requested prior to placing an order.

Lochinvar®
High Efficiency Water Heaters, Boilers and Pool Heaters

Lochinvar Corporation • 300 Maddox Simpson Pkwy • Lebanon, TN 37090 • 615-889-8900 / Fax: 615-547-1000
www.Lochinvar.com



PDP-5M-6/11–Printed in U.S.A.