

HEAVY DUTY ELECTRIC

The robust, vitreous enamel, hot water system for durability in a wider range of water quality environments.

Rheem's Heavy Duty Electric Products have been reliable and dependable for decades.

Their Service and Training Facilities are second to none.

Dale Craig,
Client Service Manager - Asset Services
CV SERVICES

CASE STUDY

PERTH STADIUM

PERTH, WA

Challenge

Perth Stadium, opened in 2018 is a multi-purpose venue capable of hosting 60,000 fans for sporting and entertainment events. A stable and robust hot water solution that could meet peak demand was required.

Hot Water Solution

To accommodate such a large user requirement on hot water, Rheem installed 130 x Electric Heavy Duty 50L and 17 x Electric Heavy Duty 315L. Additionally mechanical heating with Heat Exchanger and large SS Storage complemented the system.



HEAVY DUTY ELECTRIC

FOR SMALL TO LARGE APPLICATIONS



DOUBLE-COATED ENAMEL

LARGER ANODE

UP TO 36 kW

HIGH PRESSURE



Designed for large scale commercial applications and most water chemistries.

Impervious to all kinds of water

Made from a special grade of steel, lined with a double coat of heavy duty vitreous enamel and incorporates a larger anode.

Never lose pressure

HDE uses true multipoint operation through large 32mm connections with no exchange coils to restrict pressure or flow and it can be used with low pressure systems if needed.

More key features

- Suitable for either indoor or outdoor installation
- Up to 36kW providing plenty of hot water
- Trade adjustable thermostats suitable for sanitizing
- A bank of 8 x 616 315 Rheem commercial electric water heaters can deliver up to 7,480 litres of hot water in the first hour



* 5 year on the cylinder
1 year parts and labour on remainder



| TECHNICAL ELECTRIC PERFORMANCE DETAILS | | | | | | | |
|--|------|------------|------------|------------|------------|------------|------------|
| Heating Elements | | 3 x 3.6 kW | 3 x 4.8 kW | 3 x 6.0 kW | 6 x 3.6 kW | 6 x 4.8 kW | 6 x 6.0 kW |
| Total Input | kW | 10.8 | 14.4 | 18.0 | 21.6 | 28.8 | 36.0 |
| Current (per phase) | Amps | 15 | 20 | 25 | 30 | 40 | 50 |
| Litres Recovery Per Hour at Rise of | 20°C | 460 | 620 | 770 | 930 | 1240 | 1550 |
| | 30°C | 310 | 410 | 520 | 620 | 830 | 1030 |
| | 40°C | 230 | 310 | 390 | 460 | 620 | 770 |
| | 50°C | 190 | 250 | 310 | 370 | 500 | 620 |
| | 60°C | 150 | 210 | 260 | 310 | 410 | 520 |
| | 65°C | 140 | 190 | 240 | 290 | 380 | 480 |
| | 70°C | 130 | 180 | 220 | 270 | 350 | 440 |
| | 75°C | 120 | 170 | 210 | 250 | 330 | 410 |

Note: Figures rounded to the nearest 10 litres.

INSTALL A



TECHNICAL DATA

| DIMENSIONS AND TECHNICAL DATA TABLE INDOOR/OUTDOOR MODELS | | | | | |
|---|-----------|--------------|--------------|-------------|--|
| Model | | 613 050 | 613 315 | 616 315 | |
| Storage Capacity | Litres | 60 | 325 | 325 | |
| Delivery Rating | Litres | 50 | 315 | 315 | |
| Dimensions | A mm | 675 | 1640 | 1640 | |
| | B mm | 436 | 638 | 638 | |
| | C mm | 476 | 678 | 678 | |
| | D mm | 405 | 1294 | 1294 | |
| | E mm | 90 | 128 | 128 | |
| | F mm | 80 | 130 | 130 | |
| | H Degrees | 30° | 32° | 32° | |
| | J Degrees | 90° | 90° | 90° | |
| Weight – Empty | kg | 34 | 96 | 98 | |
| Inlet/Outlet Connections (BSPF) | | RP1¼ | RP1¼ | RP1¼ | |
| T&PR Valve Connection (BSPF) | | RP¾ | RP¾ | RP¾ | |
| T&PR Valve Setting | kPa | 1000 | 1000 | 1000 | |
| Expansion Control Valve (ECV) ¹⁶ Setting | kPa | 850 | 850 | 850 | |
| Max. Water Supply Pressure without ECV ¹⁶ fitted | kPa | 800 | 800 | 800 | |
| | kPa | 680 | 680 | 680 | |
| Factory Thermostat Setting | °C | 70 | 70 | 70 | |
| Min. Thermostat Setting | °C | 60 | 60 | 60 | |
| Manifold – Min. Centre to Centre | mm | 685 | 890 | 890 | |
| Electrical Connection | 240V | single phase | single phase | | |
| | 415V | three phase | three phase | three phase | |
| Heating Elements | kW | 3 x 3.6 | 3 x 3.6 | 6 x 3.6 | |
| | or | 3 x 4.8 | 3 x 4.8 | 6 x 4.8 | |
| | or | – | 3 x 6.0 | 6 x 6.0 | |
| | | | | | |

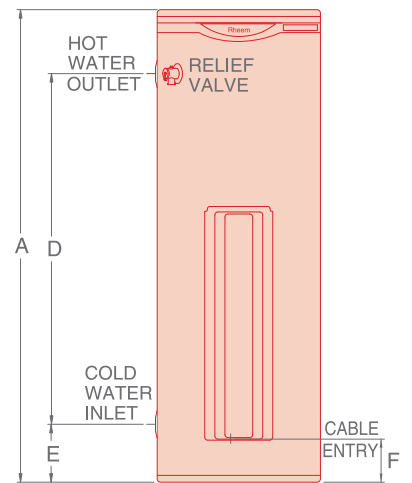
¹⁶ Expansion control valve not supplied with the water heater.

| APPROXIMATE DAILY ENERGY CONSUMPTION | | | | | |
|---|-----------------------------------|---|---------|---------|--|
| Daily Hot Water Usage @ 50°C Temp Rise (Litres) | Energy Content of Hot Water (kWh) | RHEEM COMMERCIAL ELECTRIC WATER HEATERS | | | |
| | | Approximate Energy Used Per Day (kWh) | | | |
| | | 613 050 | 613 315 | 616 315 | |
| 0 | 0.0 | 1.8 | 3.1 | 3.2 | |
| 50 | 2.9 | 4.7 | 6.0 | 6.1 | |
| 100 | 5.8 | 7.6 | 8.9 | 9.0 | |
| 150 | 8.7 | 10.5 | 11.8 | 11.9 | |
| 200 | 11.6 | 13.4 | 14.7 | 14.8 | |
| 250 | 14.5 | 16.3 | 17.6 | 17.7 | |
| 300 | 17.4 | 19.2 | 20.5 | 20.6 | |
| 350 | 20.3 | 22.1 | 23.4 | 23.5 | |
| 400 | 23.3 | 25.1 | 26.4 | 26.5 | |
| 450 | 26.2 | 28.0 | 29.3 | 29.4 | |
| 500 | 29.1 | 30.9 | 32.2 | 32.3 | |
| 600 | 34.9 | 36.7 | 38.0 | 38.1 | |
| 700 | 40.7 | 42.5 | 43.8 | 43.9 | |
| 800 | 46.5 | 48.3 | 49.6 | 49.7 | |
| 900 | 52.3 | 54.1 | 55.4 | 55.5 | |
| 1000 | 58.1 | 59.9 | 61.2 | 61.3 | |
| 1250 | 72.7 | 74.5 | 75.8 | 75.9 | |
| 1500 | 87.2 | 89.0 | 90.3 | 90.4 | |
| 1750 | 101.7 | 103.5 | 104.8 | 104.9 | |
| 2000 | 116.3 | 118.1 | 119.4 | 119.5 | |
| 2500 | 145.3 | – | 148.4 | 148.5 | |
| 3000 | 174.4 | – | – | 177.6 | |
| 3500 | 203.5 | – | – | 206.7 | |
| 4000 | 232.6 | – | – | 235.8 | |
| 5000 | 290.7 | – | – | 293.9 | |

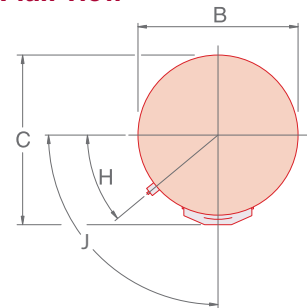
| PERFORMANCE DATA | | | | | | | | | | | |
|------------------|--------------------------|---------------------------|-----------------------|-----------------|---|---------|---------|---------|---------|---------|------|
| Model | No. of Units in Parallel | Initial Delivery (Litres) | Heating Elements (kW) | Total Kilowatts | Available Litres of Hot Water at 50°C Temperature Rise Over Peak Period | | | | | | |
| | | | | | 1 Hour | 2 Hours | 3 Hours | 4 Hours | 6 Hours | 8 Hours | |
| 613 050 | 1 | 50 | 3 x 3.6 | 10.8 | 240 | 420 | 610 | 790 | 1160 | 1540 | |
| | | | 3 x 4.8 | 14.4 | 300 | 550 | 790 | 1040 | 1540 | 2030 | |
| | 613 315 | 1 | 315 | 3 x 3.6 | 10.8 | 500 | 690 | 870 | 1060 | 1430 | 1800 |
| | | | | 3 x 4.8 | 14.4 | 560 | 810 | 1060 | 1310 | 1800 | 2300 |
| | | 2 | 630 | 3 x 6.0 | 18.0 | 620 | 930 | 1240 | 1550 | 2170 | 2790 |
| | | | | 3 x 3.6 | 21.6 | 1000 | 1370 | 1740 | 2120 | 2860 | 3600 |
| 616 315 | 1 | 315 | 3 x 4.8 | 28.8 | 1130 | 1620 | 2120 | 2610 | 3600 | 4590 | |
| | | | 3 x 6.0 | 36.0 | 1250 | 1870 | 2490 | 3110 | 4350 | 5580 | |
| | 3 | 945 | 3 x 3.6 | 32.4 | 1500 | 2060 | 2620 | 3170 | 4290 | 5400 | |
| | | | 3 x 4.8 | 43.2 | 1690 | 2430 | 3170 | 3920 | 5400 | 6890 | |
| | | | 3 x 6.0 | 54.0 | 1870 | 2800 | 3730 | 4660 | 6520 | 8380 | |
| | | | 6 x 3.6 | 21.6 | 690 | 1060 | 1430 | 1800 | 2540 | 3290 | |
| 2 | 630 | 6 x 4.8 | 28.8 | 810 | 1310 | 1800 | 2300 | 3290 | 4280 | | |
| | | 6 x 6.0 | 36.0 | 930 | 1550 | 2170 | 2790 | 4030 | 5270 | | |
| | | 6 x 3.6 | 43.2 | 1370 | 2120 | 2860 | 3600 | 5090 | 6570 | | |
| | | 6 x 4.8 | 57.6 | 1620 | 2610 | 3600 | 4590 | 6570 | 8560 | | |
| | | 6 x 6.0 | 72.0 | 1870 | 3110 | 4350 | 5580 | 8060 | 10540 | | |
| | | 6 x 3.6 | 64.8 | 2060 | 3170 | 4290 | 5400 | 7630 | 9860 | | |
| 3 | 945 | 6 x 4.8 | 86.4 | 2430 | 3920 | 5400 | 6890 | 9860 | 12830 | | |
| | | 6 x 6.0 | 108.0 | 2800 | 4660 | 6520 | 8380 | 12090 | 15810 | | |
| | | 6 x 3.6 | 86.4 | 2750 | 4230 | 5720 | 7200 | 10180 | 13150 | | |
| | | 6 x 4.8 | 115.2 | 3240 | 5220 | 7200 | 9190 | 13150 | 17110 | | |
| | | 6 x 6.0 | 144.0 | 3740 | 6210 | 8690 | 11170 | 16120 | 21070 | | |
| | | 6 x 3.6 | 108.0 | 3430 | 5290 | 7150 | 9010 | 12720 | 16440 | | |
| 4 | 1260 | 6 x 4.8 | 144.0 | 4050 | 6530 | 9010 | 11480 | 16440 | 21390 | | |
| | | 6 x 6.0 | 180.0 | 4670 | 7770 | 10860 | 13960 | 20150 | 26340 | | |
| | | 6 x 3.6 | 129.6 | 4120 | 6350 | 8580 | 10810 | 15260 | 19720 | | |
| | | 6 x 4.8 | 172.8 | 4860 | 7830 | 10810 | 13780 | 19720 | 25670 | | |
| | | 6 x 6.0 | 216.0 | 5610 | 9320 | 13040 | 16750 | 24180 | 31610 | | |
| | | 6 x 3.6 | 108.0 | 3430 | 5290 | 7150 | 9010 | 12720 | 16440 | | |
| 5 | 1575 | 6 x 4.8 | 144.0 | 4050 | 6530 | 9010 | 11480 | 16440 | 21390 | | |
| | | 6 x 6.0 | 180.0 | 4670 | 7770 | 10860 | 13960 | 20150 | 26340 | | |
| | | 6 x 3.6 | 129.6 | 4120 | 6350 | 8580 | 10810 | 15260 | 19720 | | |
| | | 6 x 4.8 | 172.8 | 4860 | 7830 | 10810 | 13780 | 19720 | 25670 | | |
| | | 6 x 6.0 | 216.0 | 5610 | 9320 | 13040 | 16750 | 24180 | 31610 | | |
| | | 6 x 3.6 | 108.0 | 3430 | 5290 | 7150 | 9010 | 12720 | 16440 | | |
| 6 | 1890 | 6 x 4.8 | 144.0 | 4050 | 6530 | 9010 | 11480 | 16440 | 21390 | | |
| | | 6 x 6.0 | 180.0 | 4670 | 7770 | 10860 | 13960 | 20150 | 26340 | | |
| | | 6 x 3.6 | 129.6 | 4120 | 6350 | 8580 | 10810 | 15260 | 19720 | | |
| | | 6 x 4.8 | 172.8 | 4860 | 7830 | 10810 | 13780 | 19720 | 25670 | | |
| | | 6 x 6.0 | 216.0 | 5610 | 9320 | 13040 | 16750 | 24180 | 31610 | | |
| | | 6 x 3.6 | 108.0 | 3430 | 5290 | 7150 | 9010 | 12720 | 16440 | | |
| 613 050 | 1 | 50 | 3 x 3.6 | 10.8 | 190 | 340 | 480 | 620 | 910 | 1190 | |
| | | | 3 x 4.8 | 14.4 | 240 | 430 | 620 | 810 | 1190 | 1570 | |
| | 613 315 | 1 | 315 | 3 x 3.6 | 10.8 | 460 | 600 | 740 | 890 | 1170 | 1460 |
| | | | | 3 x 4.8 | 14.4 | 510 | 700 | 890 | 1080 | 1460 | 1840 |
| | | 2 | 630 | 3 x 6.0 | 18.0 | 550 | 790 | 1030 | 1270 | 1740 | 2220 |
| | | | | 3 x 3.6 | 21.6 | 920 | 1200 | 1490 | 1770 | 2340 | 2920 |
| 616 315 | 1 | 315 | 3 x 4.8 | 28.8 | 1010 | 1390 | 1770 | 2150 | 2920 | 3680 | |
| | | | 3 x 6.0 | 36.0 | 1110 | 1580 | 2060 | 2540 | 3490 | 4440 | |
| | 3 | 945 | 3 x 3.6 | 32.4 | 1370 | 1800 | 2230 | 2660 | 3520 | 4370 | |
| | | | 3 x 4.8 | 43.2 | 1520 | 2090 | 2660 | 3230 | 4370 | 5520 | |
| | | | 3 x 6.0 | 54.0 | 1660 | 2370 | 3090 | 3800 | 5230 | 6660 | |
| | | | 6 x 3.6 | 21.6 | 600 | 890 | 1160 | 1460 | 2030 | 2600 | |
| 2 | 630 | 6 x 4.8 | 28.8 | 700 | 1080 | 1460 | 1840 | 2600 | 3360 | | |
| | | 6 x 6.0 | 36.0 | 790 | 1270 | 1740 | 2220 | 3170 | 4130 | | |
| | | 6 x 3.6 | 43.2 | 1200 | 1770 | 2340 | 2920 | 4060 | 5200 | | |
| | | 6 x 4.8 | 57.6 | 1390 | 2150 | 2920 | 3680 | 5200 | 6730 | | |
| | | 6 x 6.0 | 72.0 | 1580 | 2540 | 3490 | 4440 | 6350 | 8250 | | |
| | | 6 x 3.6 | 64.8 | 1800 | 2660 | 3520 | 4370 | 6090 | 7800 | | |
| 3 | 945 | 6 x 4.8 | 86.4 | 2090 | 3230 | 4370 | 5520 | 7800 | 10090 | | |
| | | 6 x 6.0 | 108.0 | 2370 | 3800 | 5230 | 6660 | 9520 | 12380 | | |

Note: Figures rounded to the nearest 10 litres.

Side view



Plan view



COMES ON STEADY, HOT AND STRONG