Install a Rheem

Instruction Manual for Electric Storage Water Heater

MODELS: -

- ★ EV-30
- ★ EV-50
- ★ EV-80
- ★ EV-100

Please Read This Manual Carefully Before Installation and Application

Rheem Manufacturing Co. Singapore Pte Ltd

Content

Thank you for choosing a Rheem Electric Storage Water Heater.
Please read this manual carefully before installation and application. In particular, please pay special attention to the Safety Instruction and Warnings. The installation must be undertaken by an authorized person. Please leave this manual with the owner upon completion of installation.

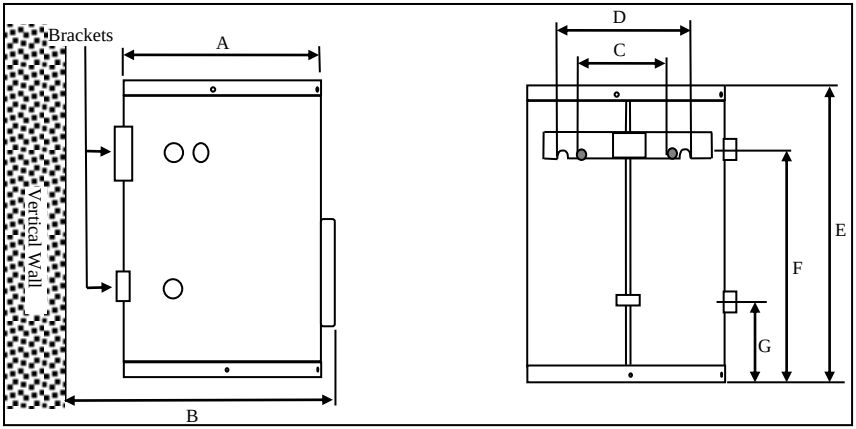
Features

- Mains pressure storage water heater ensures stable hot water supply.
- Various tank capacities available – allow simultaneous multi point hot water usage.
- The adjustable thermostat automatically controls the electricity supply to the heating unit so constant temperature is maintained.
- Safety devices such as over temperature cut out and Temperature and Pressure Relief (TP&R) vale are standard features.
- The temperature is preset at 65°C for reasons of safety and economy, but can be field reset if necessary.
- The life span of the tank is greatly extended by our exclusive "Rheemglas" vitreous enamel lining and sacrificial anode rod, ensuring years of trouble free performance.
- Thick Polyurethane foam free of CFC enables the water heater to be more energy efficient by retaining heat and thus reduce operating cost.
- Heater jacket is protected by colorbond – a thick gauge precoated steel having exceptional strength and corrosion resistance.

Safety

- The water heater must have provision for drainage in the event that the water heater leaks or connection pipes break.
- The water heater uses 220-240V/50Hz AC x single phase.
- Power supply cable must be sized to safely carry maximum current draw.
- Ensure that the electrical connections are undertaken by a qualified electrician complying to Local Code of Practice.
- Power must not be turned on until the water heater is filled with water. Open all hot water taps/faucets to release trapped air until only water is discharged.
- Temperature over 50°C may cause scalding. Please mix cold water with hot water to obtain the right bathing temperature.
- Please operate the T&PR valve manually at least once every 6 months to remove lime deposits and verify that the drain pipe from the valve is not blocked.
- Power must be turned off before any service and maintenance work is undertaken by a qualified technician.
- For replacement of parts, please use original parts from manufacturer. Use of non-approved parts will result in a void of warranty for the heater.
- Water may drip from the discharge pipe of the TPR valve during normal expansion. The discharge pipe should be left open to the atmosphere preferably 150 mm above the nearest floor trap. On no accounts must the drain pipe be plugged.

Technical Data and Dimensions



Model Number		**EV30**	**EV50**	**EV80**	**EV100**
Storage Capacity	L	30	50	80	100
Power Rating	W	~220V 1500W / ~240V 3000W			
Rated Electric Current	A	6.8 / 12.5			
Time Required for 50°C rise	min.	70/35	120/60	190/95	238/119
Diameter A	mm	Ø370	Ø458		
Mounted with Brackets B	mm	425	513		
Brackets Space C/D	mm	300/350			
Height E	mm	495	552	811	975

Outlet F	mm	312	387	634	798
Inlet G	mm	162	170	170	170
Voltage Input		220-240V~/50Hz			
Temp. Setting	°C	65			
Water Pressure	MPa	0.02 ~ 0.6			
PRV Setting	MPa	1.0			
Pipe Sizes for Inlet and Outlet		RP 3/4 20			
Pipe Size for Safety Valve		RP 3/4 20			
Shipping Weight	Kg	18	24	31	36

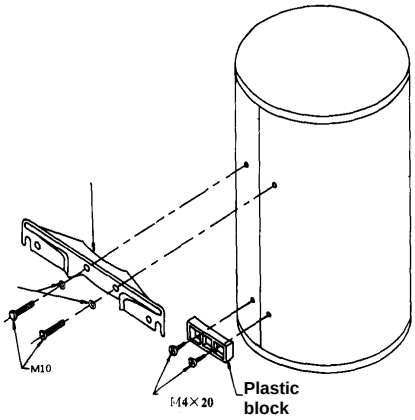
Installation and Connection

Choose where to install

- The water heater must be installed indoor.
- The wall must be strong enough to hold a heater using brackets and raw plugs provided.
- The heater is to be installed as near to the point of use as possible.
- Ensure that sufficient space is available for servicing..
- There must be a floor trap near installation point.
- Water heater/electric plug/electric leakage protector should be protected from splashing water.

Installation

- Fasten bracket on the upper holes in the back of Water Heater with M10 bolts and washer.
- Fasten plastic spacer on the lower holes in the back of Water Heater with M10 screws and washer.
- Locate the drilling position for expansion bolts on the wall, as shown in diagram2. The four holes must be in the same horizontal line.
- Drill holes on the wall, and then insert into the holes the M12x100 expansion bolts with nut. Hung up the heater on the wall and fasten the Bracket with nut.



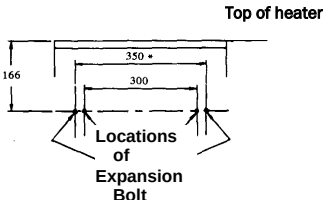


Diagram 2

Connection – Plumbing

- Pipe Material
  The pipes connecting to the inlet and outlet of the water heater must be strong enough to withstand water pressure up to 1.40 MPa.
- Pipe Size
  ¾ (20mm) copper pipes are to be used for cold water inlet and hot water outlet.
- Connection
  Water connections are located at the side of the heater. Heat must not be applied at these connections as it can damage the internal dip tubes.
- Install a drain
  The T&P Relief valve is supplied with the heater. This is to protect the heater from excessive pressure and temperature. It is recommended that a routine preventative maintenance is carrying out at least once in every 6 mouths.

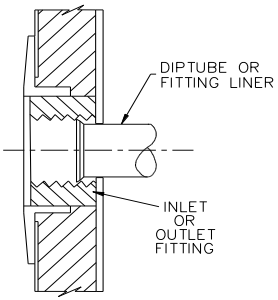


Diagram 3

Lift and release the lever handle on the temperature pressure relief valve to make certain that the valve operates freely and allow several gallons of

water to flush through the discharge line. Ensure the discharge water is directed to an open drain.

If the main pressure is too low, the amount of hot water delivered to multiple points will be unsatisfactory. Thus a booster pump is suggested to be fitted to increase the pressure. A pressure-limiting valve is suggested to be fitted if the main pressure exceeds the rated maximum pressure.

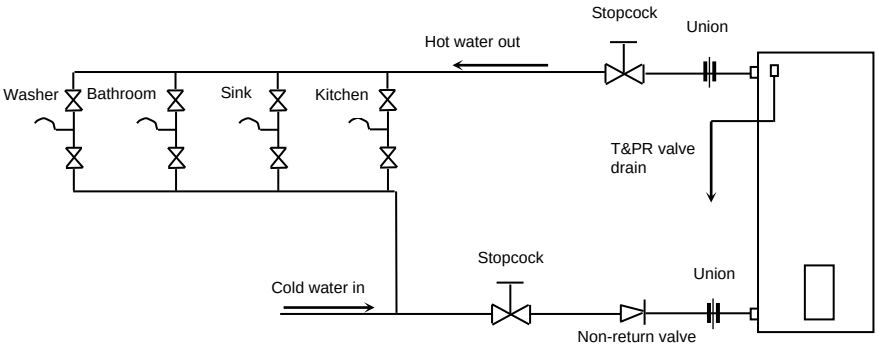


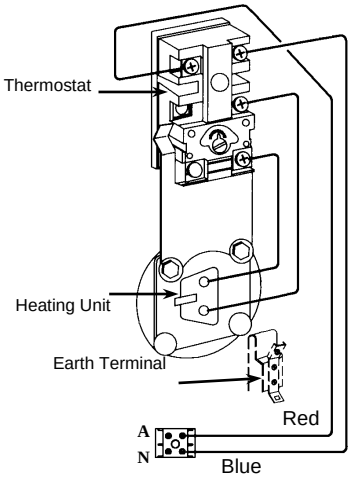
Diagram 4

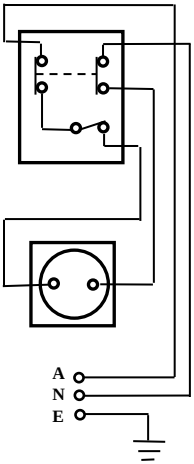
Connection -- Electrical

DO NOT turn on the power supply to the water heater until the water heater is filled with water and satisfactory megger reading is obtained.

- Electrical connection must be undertaken by a qualified electrician.
- The water heater shall be connected to single phase AC supply and its rated power is 220-240V 50Hz. Refer to rating label for input in wattage.

Option A: This diagram is for Robertshaw “EWT” Thermostats





Option B: This diagram is for Robertshaw “ST” Thermostats

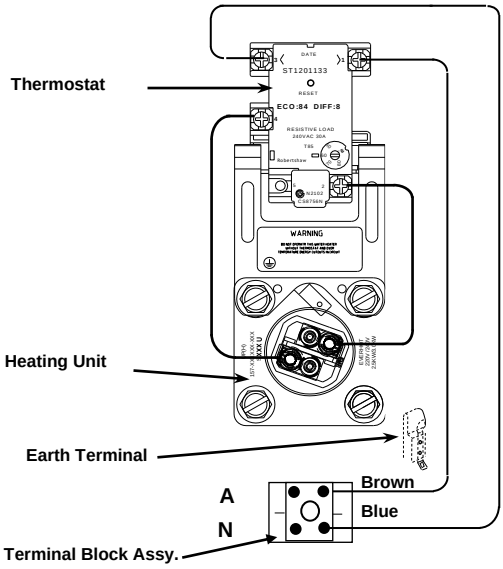


Diagram 5 Electrical connection

Application

Filling the Water Heater

- Turn on all hot water taps to release air.
- Turn on the cold water inlet to the water heater.
- When water flows from each hot water tap without any presence of air, it means that the heater is completely filled with water. Close all hot water taps.

Warnings: Power must not be switched on until the water heater is filled with water. There will be NO WARRANTY for dry firing.

Using Hot Water

- It is suggested that cold water tap always be turned on first when there is a water demand. While the hot water tap always be closed first usage is finished. This is to avoid scalding.
- Mix the hot water with cold water by adjusting the taps to your satisfactory requirement.
- When thermostat cuts off, the stored hot water can still be drawn off. The water heater will operate automatically when the thermostat cuts in.
- When water supply is cut off, do not use the stored hot water to avoid the water heater being dry fired due to empty tank.

Shut off the water heater

The water heater should be switched off for servicing or during long vacation. Shut off the water heater according to following steps:

- Isolate power supply
- Close cold water supply valve at the inlet of heater

Maintenance

Temperature and Pressure (T&P) Relief Valve

- Manually operate the T&P Relief valve at least once every 6 months to remove lime deposits and verify that it is not blocked. If there is no water flowing out, please call for a serviceman.
- Damage on the heaters due to blockage / chokage at the overflow outlet will void the warranty.

Common breakdowns and remedies

Fault	Possible Causes	Remedies
No hot water flowing out	1) Cold water inlet tap is shut 2) Pipes are blocked 3) Water supply is cut off by Utility	1) Turn on the inlet taps 2)Dredge the pipe by plumbers
Water is not hot	1) Electric plug is off at the socket 2) Terminal block is damaged 3) ELCB has operated element has failed 4) ECO has activated 5) Temperature set is too low 6) Thermostat is damaged 7) Water heater is working	1) Plug in 2) Call electrician 3) Call electrician 4) Call electrician 5) Raise the set temperature 6) Call electrician 7) Please wait for a while
Sound from the water heater and pipelines	1) Heating up noise 2) Abnormal sound in pipeline when mains pressure is not stable 3) Scaling on elements	1) Normal 2) Normal. Close the cold water inlet tap for a while. 3) Call for a serviceman

T&P Relief valve discharges water	1) Expansion of water during heating up 2) Valve is blocked by foreign materials 3)Excessive cold water pressure	1) Normal 2) Operate valve lever to remove dirt deposit 3) Reduce incoming water pressure

Service

RHEEM MANUFACTURING COMPANY (SINGAPORE) PTE LTD, representing RHEEM Water Heaters will guarantee the heater for a period of twelve months from date of original installation and operation against defect through faulty materials and workmanship.

RHEEM MANUFACTURING COMPANY (SINGAPORE) PTE LTD will warrant to replace any part or parts which prove to have been defective and which have not been misused or carelessly handled. We reserve the right to decline responsibility where installation has been incorrectly carried out and not in accordance with the manufacturer's instructions, which accompany each heater.

Rheem Water Heater
Rheem Manufacturing Company (Singapore) Pte Ltd

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