

RH388 Series

(comes in ELCB, AC Pump or DC Pump)

Electric Instant Water Heaters

The Electronic Control System enables easy selection of shower temperatures by simply turning the temperature control knob. Quality comes guaranteed with our state-of-the art design and is manufactured in accordance to the stringiest ISO 9001 Standards. **RHEEM** cares for your needs and gives you our new era of technological advance product, providing you with the most sensational shower.



Colors Available : Metallic Silver & White



Electronic Variable Temperature Control System

Standard & Safety - RH388 E

Manufactured in accordance to the stringiest ISO 9001 Standard. Safety comes with the latest technology built-in ELCB (Electric Leakage Circuit Breaker).

A.C Booster Pump - RH388 EP

Built to be more efficient, the A.C. Pump can boost water flow of up to 400%. It comes with speed control feature to control the volume of water giving you life and fun in the bathroom.



D.C Silent Pump - RH388EPi

Silent and yet powerful. The built-in silent pump comes with latest advance technology 3-phase brushless DC motor for long lasting and superb performances. It generates high water flow and consumes 50% less electricity than the A.C Pump model.

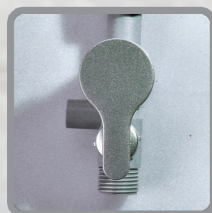


Features

Thermal Cut-Off • Anti-Scalding Features • Unlimited Capacity Hot Water Supply.



Indicator Light



Stop Valve



ELCB (Test/Reset)



Filter Mash



Temperature Control



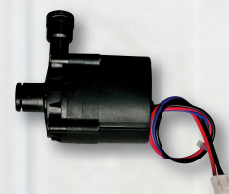
Pump Speed Control



Flexible Hose



AC Pump



Features

- 90° Regulated Stop Valve
- Electronic Temperature Control System
- Shower Pump (For Pump Model Only)
- Flip-Start Flow Switch
- Anti Scalding System
- Triple Safety System
- Electronic ELCB Safety
- 3 Spray Massage and Misty Handshower
- Voltage Surge Protector
- Splash Proof & Anti-Rust

Warranty

- Internal Parts & AC Pump - 1 Years
- DC Pump - 5 Years
- Heating Element - 5 Years
- Anti-Leak Tank - 1 Year

Accreditation

- SIRIM/ST - Malaysia
- PSB/SPRING - Singapore
- TISI - Thailand
- ISO9001:2008 Certified Manufacturer

Specifications

HEATER		
Heater Electrical Rating Available in 3.3kW to 5.5kW, 220V - 240V AC, 50/60 Hz	Minimum Water Flow Rate 2 litre/min	AC Pump Electrical Rating (Motor) 120W DC Pump Electrical Rating (Motor) 50W, 24V DC
Maximum Water Pressure 380kPa (55 PSI)	Water Temperature Control Electronic Control	
Water Connection 15mm (1/2 BSP)	Dimension 215 x 390mm x 76mm	
Weight 3.4Kg (RH388E) • 4Kg(RH388EPi) • 4.3Kg (RH388EP)	Heater Light Color Top: Yellow Down: Green	



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Authorised Dealer

Specifications and products shown are correct at the time of printing and may subject to changes without prior notice.

Congratulations!

Thank you for making excellent choice by purchasing the **RHEEM Electric water heater**.

Please read these instructions carefully for optimum performance, necessary fitting and operating instructions.

Your **RHEEM Heater** has been manufactured in a

ISO9001 registered company which provides you with assurances of its quality safety and environmental friendly.

Caution!

Read all of these instructions and retain this guide for later use.

Pass on this guide in the event of change of ownership of the installation site.

Follow all warnings, cautions and instruction contained in this guide, and on or inside appliance.

Anyone who may have difficulty understanding or operating the controls of any shower should be attended whilst showering. Particular consideration should be given to the young, the elderly, the infirm, or anyone inexperienced in the correct operation of the controls as well as children should be supervised to ensure that they do not play with the appliance.

When this appliance has reached the end of its serviceable life, it should be disposed of in a safe manner, in accordance with current local authority recycling. or waste disposal policy.

1. Warning!

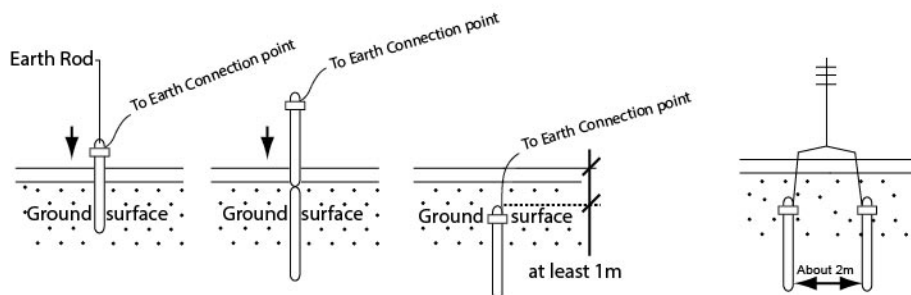
1.1. Products manufactured by us are safe and without risk provided they are installed, used and maintained in good working order in accordance with our instructions and recommendations.

1.2. THIS APPLIANCE MUST BE EARTHED.

Earthing Requirement:

The Earthing installation should be carried out in accordance with the local Wiring Regulations. Where **EARTHING** of the premises is not evident, it is **necessary to run an EARTH CONDUCTOR** and solidly connect an earth rod local to the installation. The following notes are for guidance only:

- 1.2.1 Select a damp place to bury the earth rod.
- 1.2.2 Connect earth conductor of minimum 2.5mm² (7/0.67mm) to the appliances Earth (⊕) terminal. Connect other end of the earth conductor to the earth rod.
- 1.2.3 Check to ensure earthing resistance is less than 100Ω. It may be necessary to drive two or more rods and connect them together to achieve a satisfactory results.
- 1.2.4 Installation of earth rod must be carried out by a registered and certified wiring contractor.



- 1.3. **DO NOT** allow the unit to be run dry.
- 1.4. **DO NOT** fit any form of outlet flow control as the outlet acts as a vent for the tank body. Once recommended outlet fittings should be used.
- 1.5. There are no user serviceable components beneath the cover of this appliance. Only a competent tradesperson should remove the cover.
- 1.6. If the cover is not correctly fitted and water has entered the case. Isolate the electrical and water supply before removing the cover.
- 1.7. Mains connections are exposed when the cover is removed.
- 1.8. Refer to the wiring diagram before making any electrical connections.
- 1.9. Ensure all electrical connections are tight, to prevent overheating.

Pack Contents Checklist

5



1 x Rheem Unit



4 x Wall Plug & Screw Set

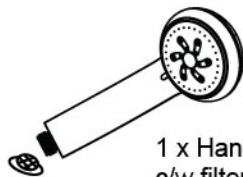


1 x Shower Holder

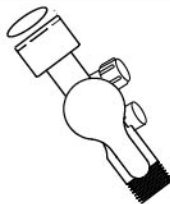
1 x Sliding Rail

1 x Soap Tray

Rail Support c/w
4 x Screw & Wall Plug Set

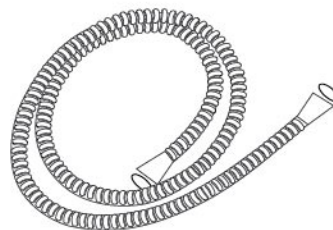


1 x Handshower
c/w filter mesh washer

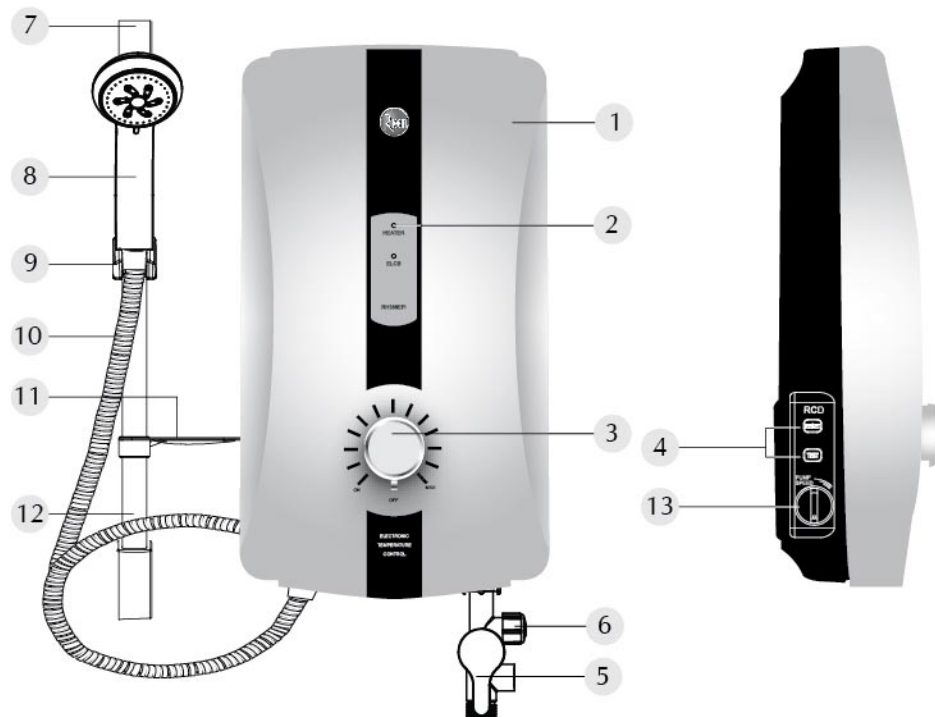


1 x Stop Valve
c/w 1pc washer

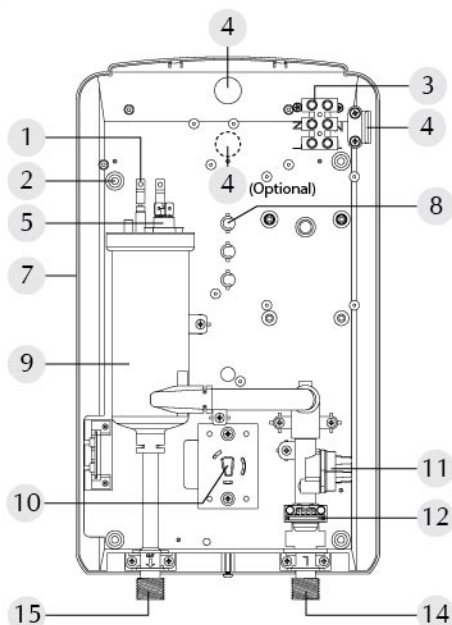
1 x Flexible Hose
c/w 2 pcs washer



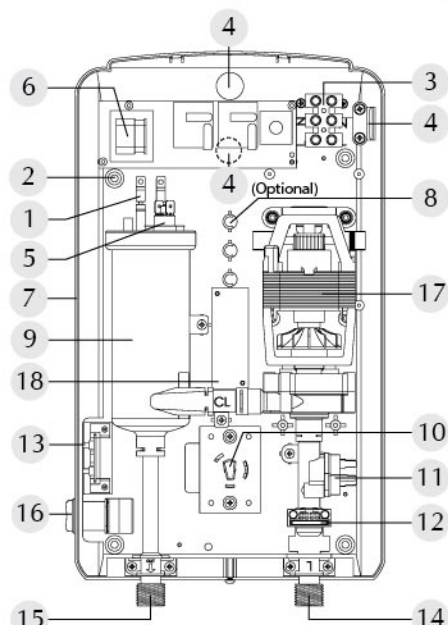
MODEL: RHEEM RH388 / E
RHEEM RH388EP / EPi



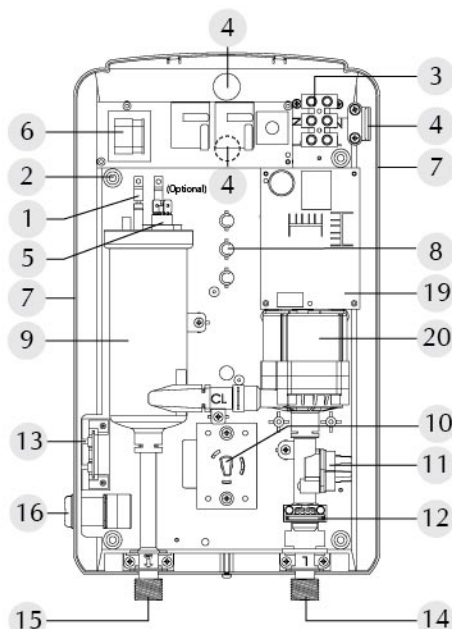
1. Heater Cover
2. Indicator Lights
3. Power Control Knob
4. RCD Test Reset button (for RCD model only)
5. Stop Valve
6. Regulator Valve
7. Rail Support (2 Nos)
8. Handshower
9. Shower Holder
10. Flexible Hose
11. Rotatable Soap Dish
12. Sliding Rail
13. Pump Speed Control



MODEL: Rheem RH388 / E



MODEL: Rheem RH388EP



MODEL: Rheem RH388EPi

1. Heating Element
2. Mounting Holes (4 Nos)
3. Terminal Block
4. Cable Entry
5. Thermostat
6. RCD Assembly (for RCD model only)
7. Heater Base
8. Indicator Light
9. Water Tank
10. Electronic Control
11. Triac
12. Flow Switch Assembly
13. RCD TEST RESET Board (for RCD model only)
14. Water Inlet
15. Water Outlet
16. Pump Speed Control
17. Pump Assembly (AC)
18. Pump Control Board (AC)
19. Pump Control Board(DC)
20. Pump Assembly(DC)

WARNING THIS APPLIANCE MUST BE EARTHED

Installation must be carried out by a qualified Electrician. The Current carrying capacity of the cable must be at least that of the shower circuit protection. (See table).

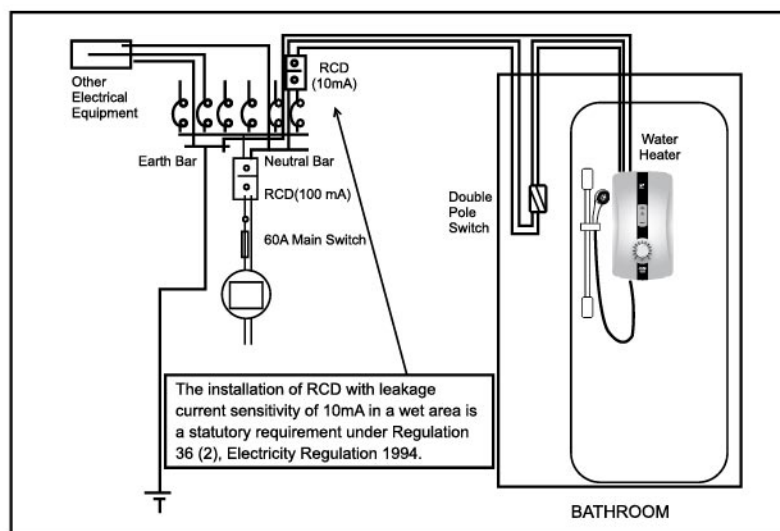
Cable Sizes Table

Country	Voltage (V~)	Power (kW)	Amperes (A)	Cable Size (mm ²)	Fuse / MCB (A)	ON / OFF Switch (A)
Malaysia	240V ~ 50Hz	3.6	15.0	4.0	20	20
Singapore	230V ~ 50Hz	3.3	14.4	4.0	16	20
Cambodia & Myanmar	220V ~ 50Hz	3.5	15.9	4.0	20	20
Philippines & Vietnam		4.5	20.5	4.0	30 / 32	30 / 32
Thailand		5.5	25.0	4.0	30 / 32	30 / 32

The shower must be connected to its own independent electrical circuit.

Lead the power cable from the indoor fuse distributor board or Miniature Circuit Breaker (MCB) to a 10mA RCD and from RCD to 'ON/OFF' Double-Pole switch outside the bathroom. Please refer to Bathroom General Wiring layout below.

The water heater must be permanently connected to the electricity-supply through a double-pole linked switch having a contact separation of at least 3mm in all poles Incorporated in the fixed wiring. This switch must be out of reach of a person using a shower. The use of a plug and socket is not recommended.



Plumbing Schematic Diagram

An electric water heater can be fitted in your home regardless of the type of plumbing system as in most cases they can operate directly off the mains cold water supply.

Fig. shows a typical system layout. Do not use jointing compounds on any pipe fittings for the installation.

The Unit works at minimum water flow rate of 2 litre/min.

SITING OF THE SHOWER

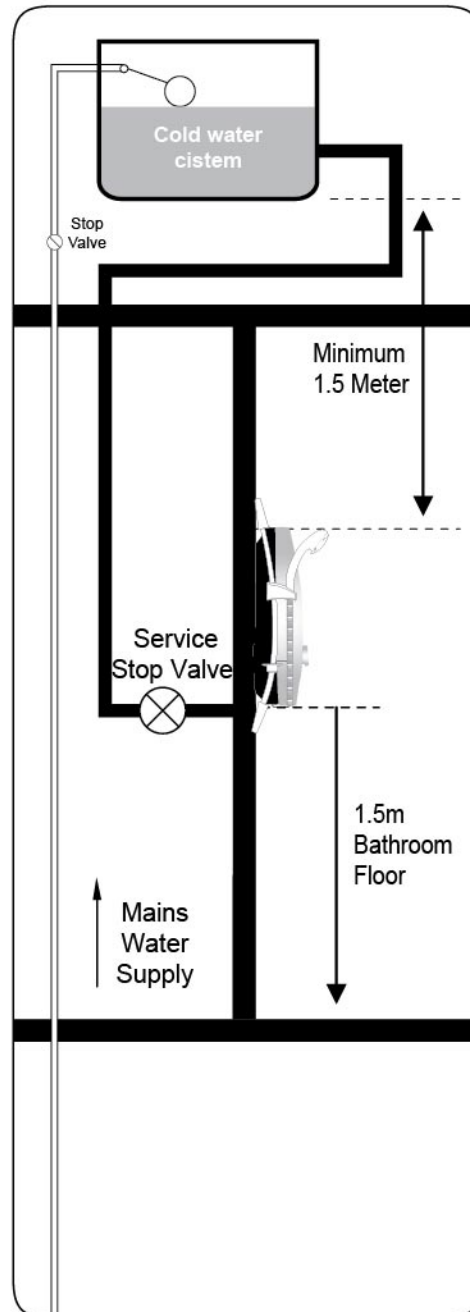
WARNING: The shower must not be positioned where it will be subjected to freezing conditions.

FOR EASE OF SERVICING, THE UNIT MUST ALWAYS BE MOUNTED ON THE SURFACE OF TILED WALLS. NEVER TILE UP TO THE UNIT.

This product is splash-proof rated and is approved for use in shower cubicles and over baths.

However, do not install the unit in a position where the sprayhead will consistently direct water over it.

The shower unit **MUST** be positioned vertically.



FIXING THE SHOWER TO THE WALL

Important: The shower must be mounted on a flat surface which covers the full width and length of the backplate. It is important that the wall surface is flat otherwise difficulty may be encountered when fitting the cover and subsequent.

1.1 Decide on a suitable position to allow for cover fit and removal.

Determine the direction that you require the inlet water supply and electrical cable to enter the unit from.

Determine the height at which you require the unit to be installed.

1.2 Unscrew the cover retaining screws sufficient to remove the cover.

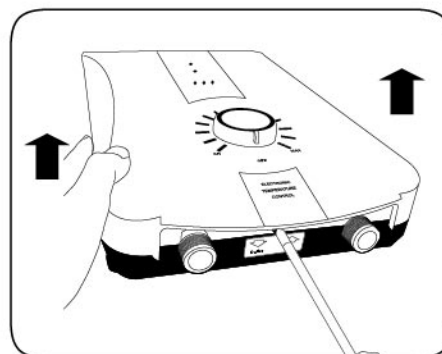
Note! The cover retaining screws are captive and should remain in the case.

1.3 Remove the cover.

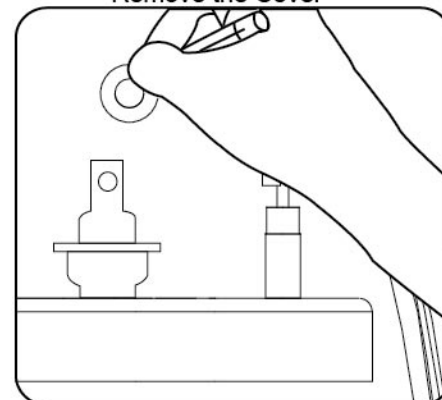
Mark the position of the unit on the wall. Mark the positions of the fixing holes. Make sure that sufficient electrical Supply cable is available for connection to the terminal block.

1.4 Drill and plug the fixing holes. Secure the unit to the wall with the screws provided. Avoid drilling into any supply cable/pipe.

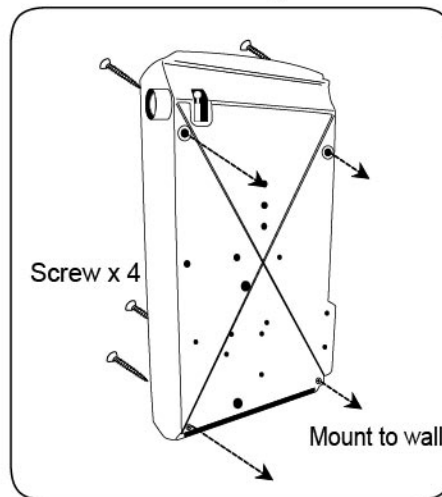
Note! Hook the backplate over the top screws and fit the lower fixing screw into position. DO NOT fully tighten the screws at this stage, as the fixing holes are elongated to allow for out of square adjustment after the plumbing connections have been completed.



Remove the Cover



Mark the mounting holes



PLUMBING CONNECTIONS

COMPLETE THIS PROCESS BEFORE WIRING CONNECTION

CONNECTION PROCEDURE:

Connect the water supply to the inlet of the shower via 15mm copper, stainless steel or plastic pipe using a 15mm x 15mm elbow compression fitting. Do not use excessive force when making these connections.

FITTING THE STOP VALVE

Feed the Stop valve by screwing to the unit Inlet.

Note:

Ensure the supplied washers are in place before connecting inlet and the Stop Valve.

Feed the other point of Stop Valve to the incoming water supply.

Ensure that the backplate of the unit is flat on the wall and positioned squarely. Tighten the fixing screws.

Turn on the water supply and check for leaks in the pipework connection to the shower.

NOTE: At this stage no water can flow through the unit.

ELECTRICAL CONNECTION

WARNING: THIS UNIT MUST BE EARTHED.

SWITCH OFF THE ELECTRICITY SUPPLY.

The cable entry points are shown in the figure below. Determine the cable entry to the unit.

a) Side entry – Poke the electrical cable through the Rubber grommet (fig. 1).

or

b) Rear entry - Poke the electrical cable through the rubber grommet (fig. 2)

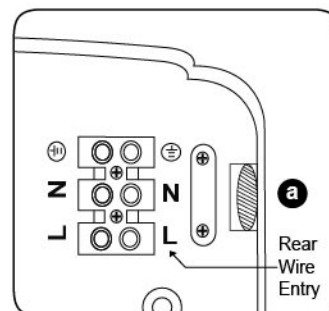
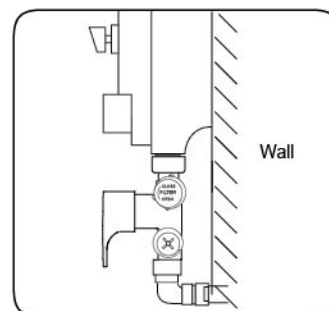
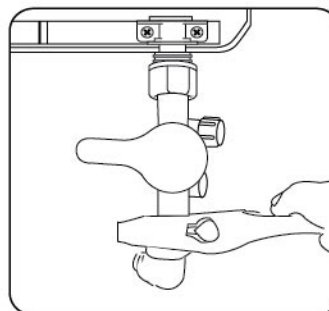
Route the cable into the shower unit and connect to the terminal block (fig. 1) as follows:-

Earth cable to terminal marked '⊕'

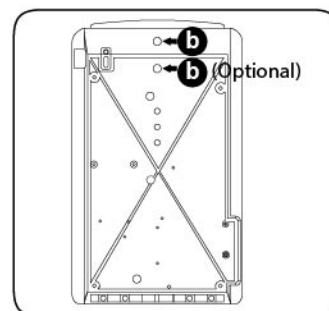
Neutral cable to terminal marked 'N'

Live cable to terminal marked 'L'

IMPORTANT: Fully tighten the terminal block screws and ensure that no cable insulation is trapped under the screws. Loose connections can result in cabling overheating. DO NOT switch on the electricity supply until the cover has been fitted.



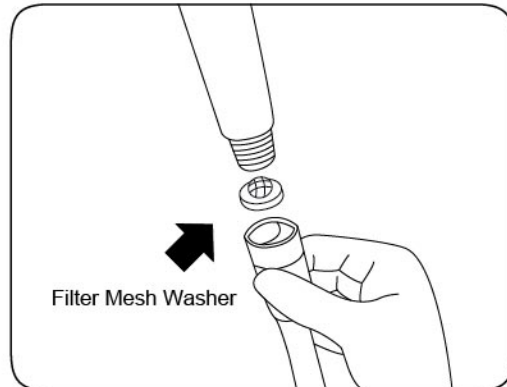
Side entry / Fig. 1



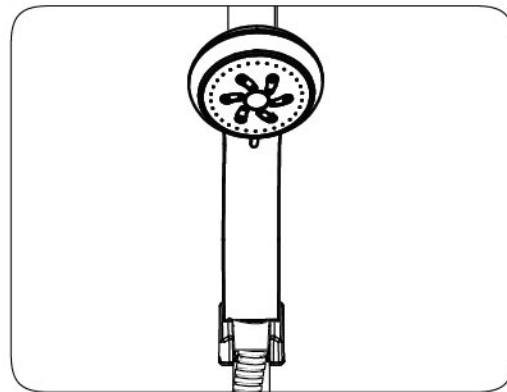
Rear entry / Fig. 2

FITTING THE HOSE AND SPRAY HEAD

Fit the flexible hose by screwing to the unit outlet (Left side) and sprayhead ensuring the supplied filter mesh washer are in place at the outlet and the Washer at the sprayhead

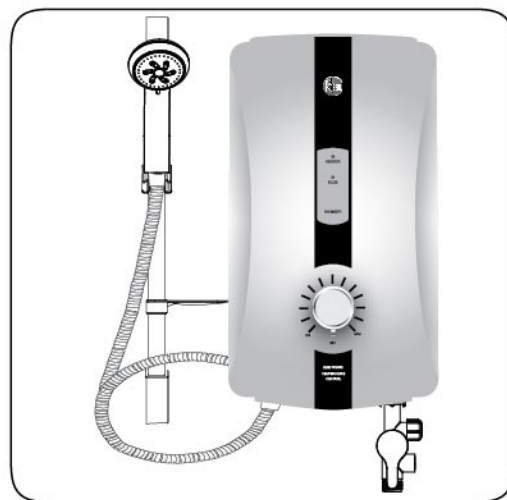


Place the sprayhead into the holder and check that it fits correctly



Important:

It is the conical end of the hose which grips into the holder. The sprayhead will not fit in the holder without the hose attached.



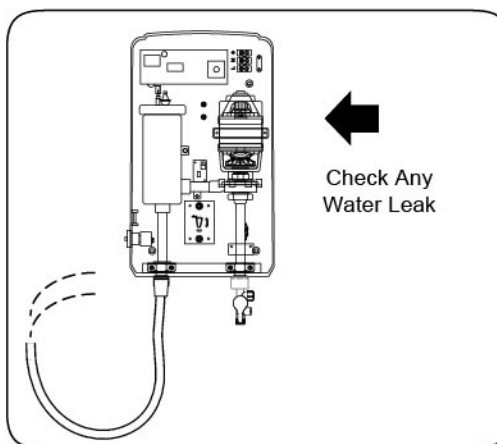
DO NOT switch on the electricity supply until the following procedure has been completed and the cover has been fitted.

The first operation of the shower is intended to flush out any remaining unit dirt particles, and to ensure the heater unit contains water before the elements are switched on.

This operation must be carried out with the flexible hose screwed to the outlet but without the sprayhead attached. Ensure the outlet of the flexible hose is directed to waste.

Turn ON the main water supply. Check if any water leaks from the pipe line.

Secure the cover in position with screws. **DO NOT OVERTIGHTEN.**



TESTING TEMPERATURE SETTING

Switch on the mains electric supply to the shower at the isolating switch.

The RCD will light meaning the unit is on standby.

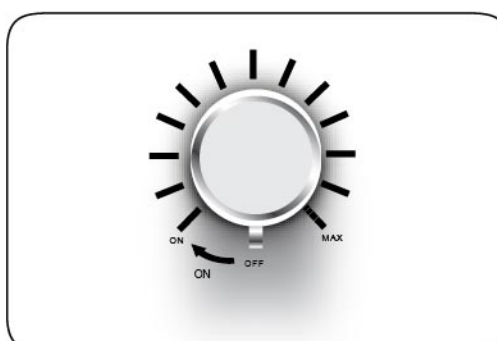
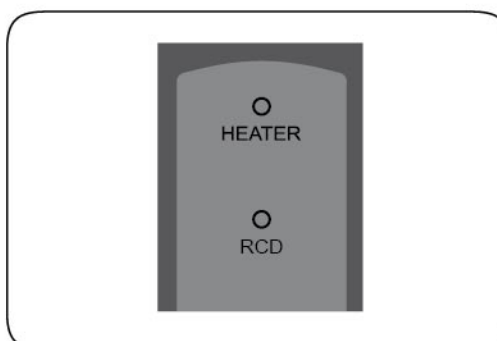
Turn the knob clockwise to ON, the HEATER indicator will Light.

Turn the knob anti-clockwise to OFF; the HEATER indicator will switch OFF again.

Continual turn the knob clockwise. The temperature of the water should rise slightly.

Allow a few seconds for the warm water to reach the handset - this shows that the power setting is operating correctly.

Set the shower temperature by rotating the Knob as necessary. Turn the knob clockwise for hotter water and anticlockwise to OFF position for cooler water.



TESTING RCD**(For RCD model only)**

Test the RCD by pressing the TEST Button. The HEATER and RCD light will turn OFF.

Press the RESET Button to switch ON the unit again. This shows the RCD should be in good condition.

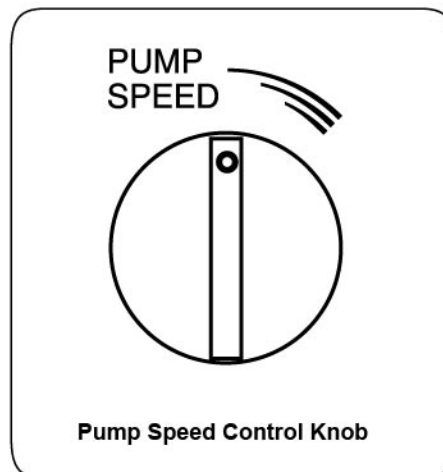
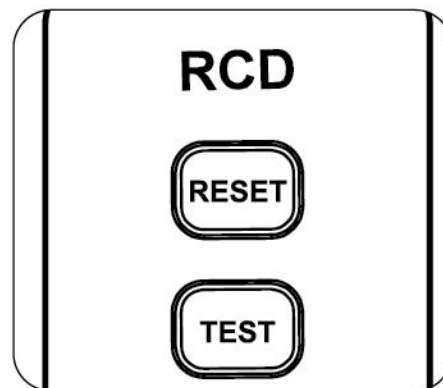
Note!

If nothing happen when these button are pressed, do not use the heater, and contact your agent immediately.

Never attempt to repair the unit yourself.

Fit the shower fittings. Once the riser rail is fitted, the shower is ready for normal use.

Turn ON the Pump Speed Control Knob at the bottom left of the heater to test run the pump. If the Shower is not hot enough, adjust the speed knob slower to reduce speed in order to get on the desired temperature. **(For Pump Model Only)**



Operating the Shower

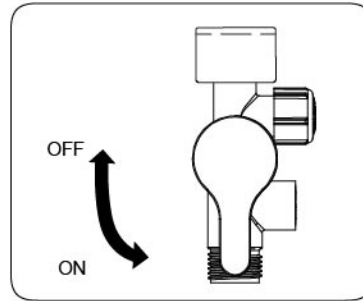
15

Important: Ensure the commissioning procedure has been carried out.

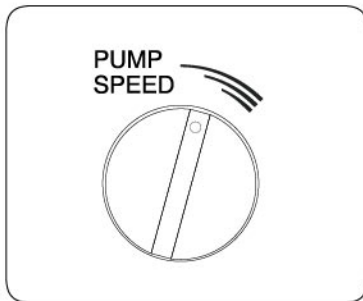
To start the shower, turn the stop valve handle anti-clockwise will allow water flow through the unit.

To stop the shower, turn the stop valve handle clockwise back to the position as shown in the figure.

CAUTION: Do Not Test Stop Valve under dry condition



The built-in Pump can be independently controlled by using the Pump Speed Control Knob. In low pressure areas (below 15 p.s.i.) adjust pump speed to obtain desired spray of water. If water pressure is high (over 15 p.s.i) turn 'OFF' the Pump Speed Control Knob in order to achieve hotter shower. **Note: It is recommended that the pump be operated at intervals of 30 minutes with 30 minutes rest**



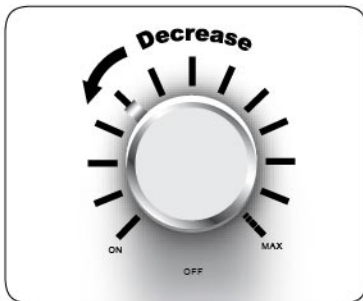
To adjust the shower temperature

The shower temperature is altered by increasing or decreasing the Power Control via the Control knob.

To increase the shower temperature
Turn the Control Knob clockwise towards the MAX Sign; this will increase the water temperature.



To decrease the shower temperature
Turn the Control Knob anti-clockwise towards the ON Sign; this will decrease the water temperature.



CAUTION: Be certain the showering temperature is satisfactory by testing with your hand before stepping under the sprayhead. There will always be a time delay of 10 to 15 seconds between selecting a flow rate and the water reaching the stable temperature for that flow rate. It is recommended that persons who may have difficulty understanding or operating the shower controls should not be left unattended whilst showering. Special consideration should be given to young children and the less able bodied.

CLEANING**NOTE: Do Not Use Thinner, Alcohol or Petrol**

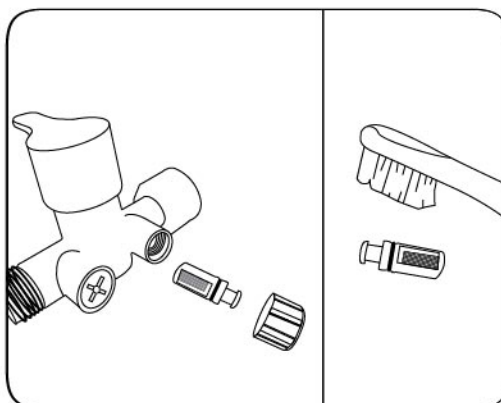
Many household cleaners contain abrasives and chemical substances, and should not be used for cleaning plated or plastic fittings. These finishes should be cleaned with a mild washing up detergent or soap solution, and then wiped dry using a soft cloth.

**FILTER MAINTENANCE**

It is recommended that the filter is periodically cleaned in order to maintain the performance of the shower.

'Open' the filter head from the stop valve. Remove the Filter Net and clean it using soft brush then wash it under running water. Ensure all dirt particles are removed.

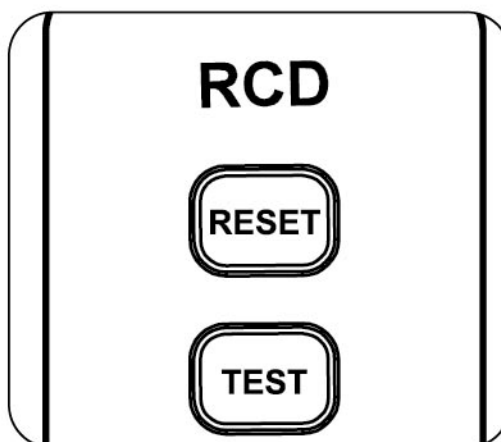
'Close' it back after washing the filter.

**TESTING RCD
(For RCD Model Only)**

Test the RCD Regularly

Turn On the unit with electric power and water supply.

Test the RCD by gently pressing TEST button. The RCD should be automatically tripped to OFF position. Press RESET to turn the unit back on.

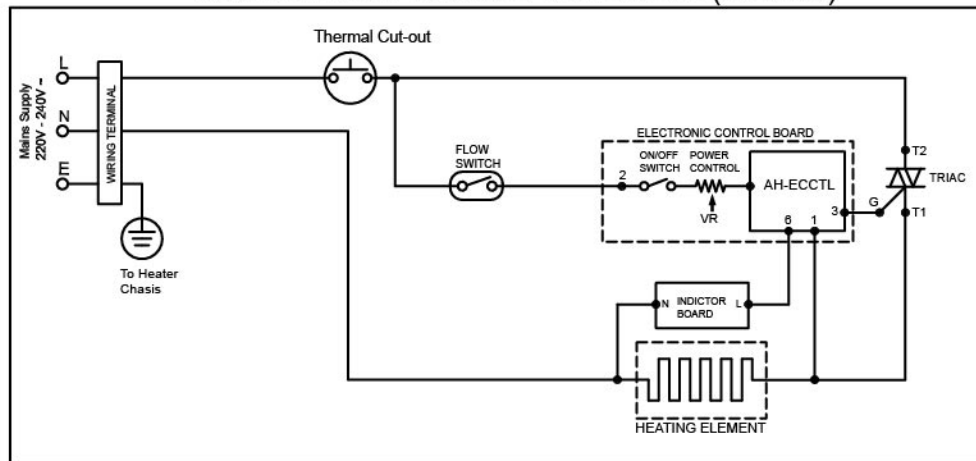


Fault / Symptom	Cause	Remedy
1. No shower coming out from the heater.	1.1 Interrupted of Water Supply	Check whether the water supply is available.
	1.2 Incoming water supply stop valves turned off.	Turn on stop valve.
	1.3 Dirt particles blocking inlet / outlet hole	Blocked sprayhead - clean or replace sprayhead. Blocked filter – see 'filter maintenance'.
2. Heater not functioning	2.1 Interrupted of Power Supply	Check if a main power cut. Check other appliances and if necessary, contact the local Electricity Supply Company.
	2.2 Low water supply to trigger flow switch	Heater requires minimum 2 litres/min water flow rate.
	2.3 Thermal Cut-Out has operated	Have the shower unit checked by a competent electrician or contact Customer Service.
	2.4 Malfunctioning on Flow Switch	
	2.5 Electrical malfunction	
3. Water too Hot	3.1 Not enough water flowing through the Unit.	Blocked sprayhead - clean or replace sprayhead. Blocked filter – see 'filter maintenance'.
	3.2 Increase in ambient water temperature.	Switch to reduced power setting and readjust flow rate to give the required temperature.
4. Water is not hot enough	4.1 Too much Water flow.	Reduce the flow rate via Pump Speed knob
	4.2 Reduction in the ambient water temperature	Switch to full power setting and adjust the Pump speed knob to reduce speed in order to get on the desired
	4.3 Electrical malfunction.	Have the shower unit checked by a competent electrician or contact Customer Service.
5. Water supply turn off but the indicator light unit still ON	5.1 Flow Switch malfunction	Have the shower unit checked by a competent electrician or contact Customer Service.
	5.2 Triac Faulty	
6. Motor tone increases	6.1 Interrupted of Water	See 1.1 and 3.1
	6.2 Pump Unit Faulty	Wait for internal pump to cool down. If still faulty contact Customer Service.

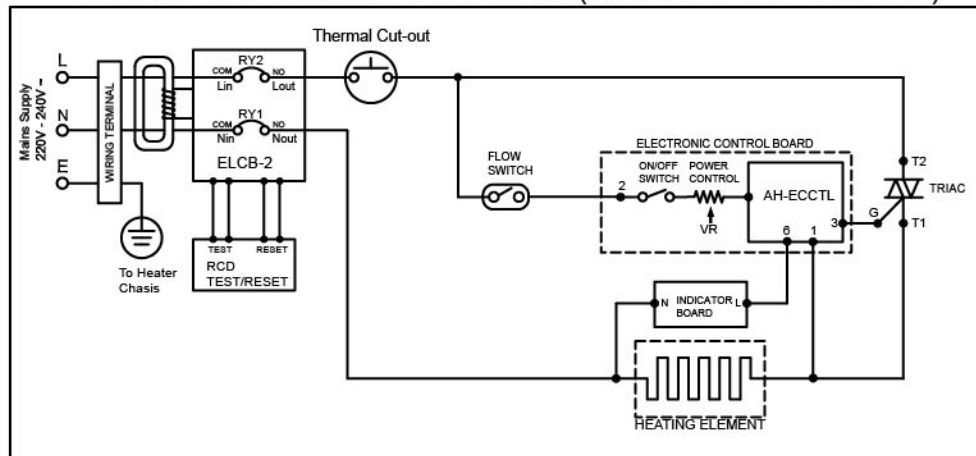
Model Electrical Rating	– Available in 3.3kW to 5.5kW, 220 – 240V AC, 50/60Hz
Minimum Water Flow Rate	– 2 liters/min
Maximum Water Pressure	– 380 kPa (55 psi)
Minimum Water Pressure	– 20 kPa (2.9 psi)
Shower Temperature Control	– Electronic Control
Water Connection	– 15mm dia. (1/2" BSP)
Dimension	– 390mm x 215mm x 76mm
Weight	– 3.40kgs

Schematic Wiring Diagram

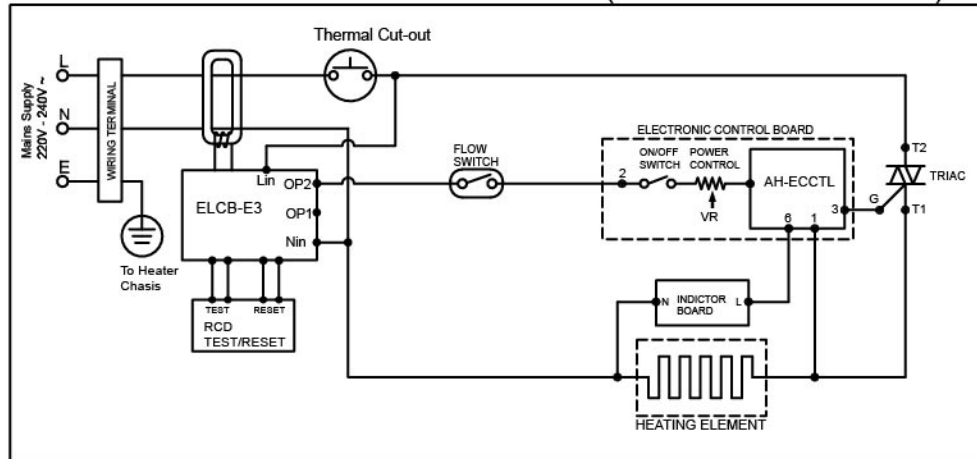
SCHEMATIC WIRING DIAGRAM (RH388)



SCHEMATIC WIRING DIAGRAM (RH388E: E2C MODEL)



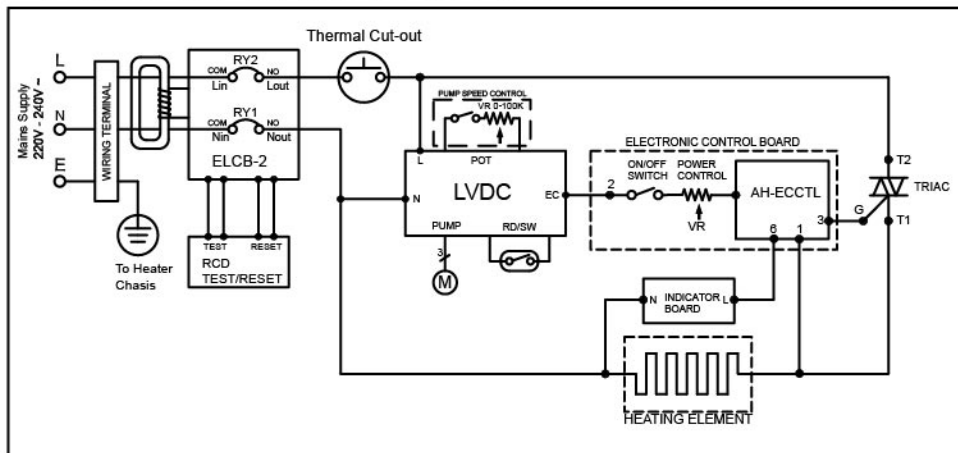
SCHEMATIC WIRING DIAGRAM (RH388E: E3 MODEL)



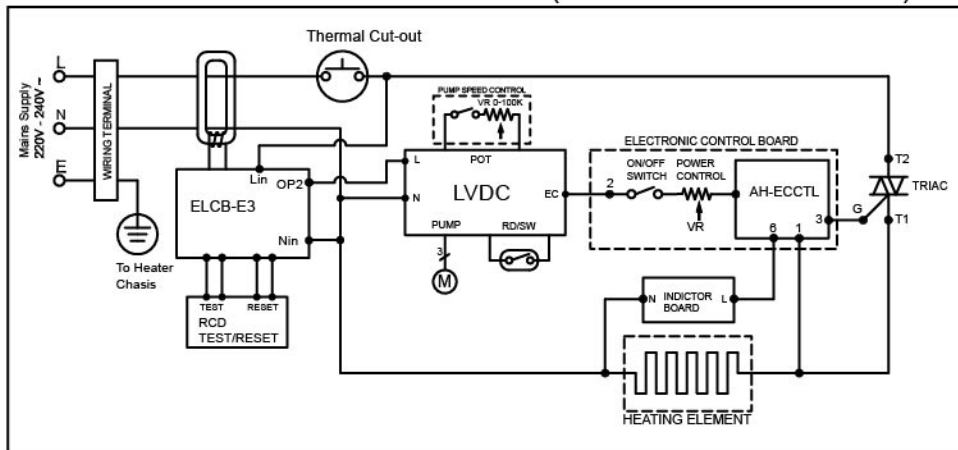
Model Electrical Rating	– Available in 3.6kW to 4.5kW, 220 – 240V AC, 50/60Hz
Minimum Water Flow Rate	– 2 liters/min
Maximum Water Pressure	– 380 kPa (55 psi)
Minimum Water Pressure	– 20 kPa (2.9 psi)
Shower Temperature Control	– Electronic Control
Water Connection	– 15mm dia. (1/2" BSP)
Dimension	– 390mm x 215mm x 76mm
Weight	– 4kgs

Schematic Wiring Diagram

SCHEMATIC WIRING DIAGRAM (RH388EPi: E2C MODEL)



SCHEMATIC WIRING DIAGRAM (RH388EPi: E3 MODEL)





The new degree of comfort.®

H^oT WATER FOR EVERYDAY LIFE

G10 SERIES ELECTRIC INSTANT WATER HEATER

G10 Series offers consistent hot water, ideal for all your warm water needs. With a compact design suitable for any bathroom or applications, and a powerful heating capacity, it guarantees a comfortable and uninterrupted experience. Say goodbye to cold showers forever by upgrading to the G10 today.



CONSTANT TEMPERATURE – WITH MINIMUM FLUCTUATION

Consistent and safe showering experience.



STAINLESS STEEL HEATING ELEMENT

Advanced technology ensures no leaks, even under hot water.



STAINLESS STEEL HEATING CHAMBER

High quality materials for easy maintenance and long service life.



ABS CONSTRUCTION

Built to last for years of worry-free showering.



UNLIMITED HOT WATER

Enjoy a luxurious, never-ending stream of hot water.



DIGITAL DISPLAY & INTUITIVE DESIGN

Easy temperature monitoring and operation.



RCD

Safeguards against electrical shocks.



IPX5 WATER RESISTANT

Safe showers every time.

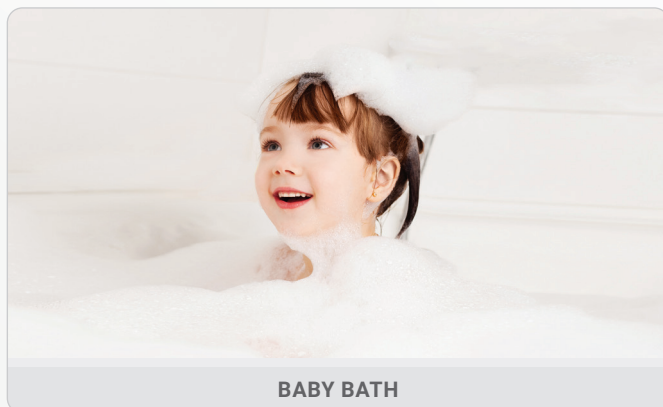




G10 SERIES ELECTRIC INSTANT WATER HEATER



COMFORT SHOWER



BABY BATH

WATER HEATER MODEL		G10-33	G10-35	G10-38	G10-45	G10-55
PANEL MATERIALS		ABS				
MATERIAL OF CHAMBER & ELEMENT		Stainless Steel 304				
POWER (kW)		3.3	3.5	3.8	4.5	5.5
VOLTAGE (V)		220 – 240				
FREQUENCY (HZ)		50/60				
RATED PRESSURE (MPa)		0				
MINIMUM WATER FLOW RATE (L/MIN)		1.5				
MAXIMUM INLET WATER PRESSURE, MPa (bar)		0.3 (3)				
MINIMUM INLET WATER PRESSURE, MPa (bar)		0.02 (0.2)				
IP RATING		IPX5				
NET WEIGHT (KG)		1.4				
GROSS WEIGHT (KG)		2.2				
PRODUCT SIZE	LENGTH (MM)	215				
	WIDTH (MM)	80				
	HEIGHT (MM)	360				
PACKAGING SIZE	LENGTH (MM)	390				
	WIDTH (MM)	125				
	HEIGHT (MM)	350				

PRODUCT DIMENSIONS



RHEEM MANUFACTURING COMPANY (SINGAPORE) PTE LTD

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