

# DHB..18/21/24/27..Si - Hydraulically - Controlled Instantaneous Water Heater.



The DHB Thermo Control is totally unique in the field of Hydraulically controlled instantaneous water heaters. The intergrated control function smoothes out any pressure fluctuations and keeps the temperature constant supplying several tap points. The Bare-wire Heating system that is housed in a pressurised copper cylinder ensures that it is suitable for both soft and hard water areas. With just one hand you can adjust the output in three stages: At low water flow, the half loading (stage 1) switches on i.e. kitchen sinks, wash basins. When bigger quantities are drawn off i.e. shower, bath; the full load is activated (stage 2). Fine-tuning is then done by using the comfort control knob. The position ●● saves energy and water when showering especially in summer.

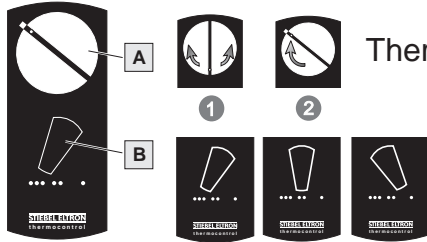
## Operation; Front Dials & Switch Description.

**A** : Comfort Switch (Temperature/Flow Dial);

- 1 - Fine adjustment of water volume & temperature (with hot tap fully open).
- 2 - High temperture low flow position.

**B** : Power Selector Switch; ●●● Full Power; ●● Engery Saving 1/3 or 2/3 power.  
● Half Power - full heating capacity blocked.

There is a danger of scalding with output temperatures in excess of 43°C.



## Flow Rate's

Type	Power * 3 PHASE	Temperature Increase from cold water inlet				
		Litre's per minute (L/min)				
		6,0	8,0	10,0	12,0	14,0
DHB	12kW	28.0°C	21.0°C	16.8°C	14.0°C	12.0°C
	18kW	42.0°C	31.5°C	25.2°C	21.0°C	18.0°C
	21kW	-	36.8°C	29.4°C	24.5°C	21.0°C
	24kW	-	42.0°C	33.6°C	28.0°C	24.0°C
	27kW	-	47.3°C	37.8°C	31.5°C	27.0°C

\* 400 Volt supply

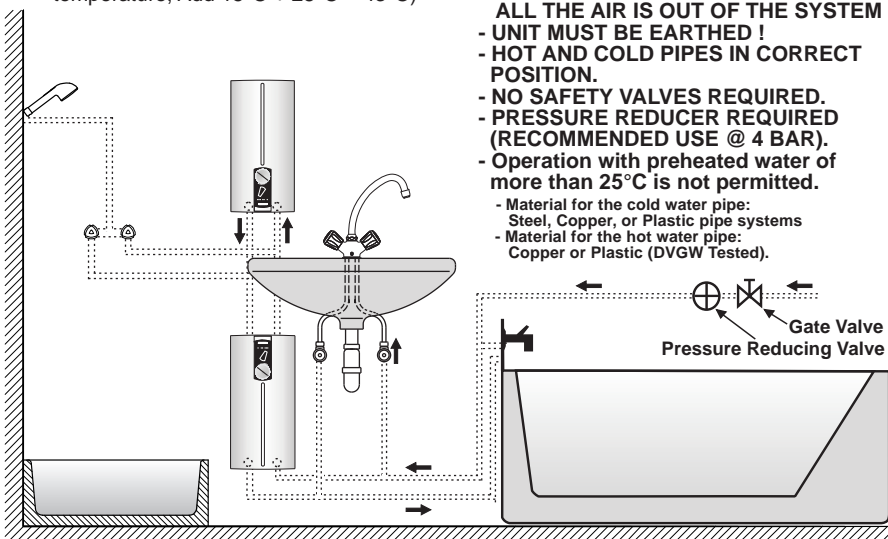
## Output Temperature's

To the above table add the temperature of the incoming cold water.

(e.g. DHB24 - "Winter" inlet temp. = 15°C & @ 12L/min you will get a 28°C rise in temperature, Add 15°C + 28°C = 43°C)

**N.B. - DO NOT CONNECT POWER UNTILL ALL THE AIR IS OUT OF THE SYSTEM !!**

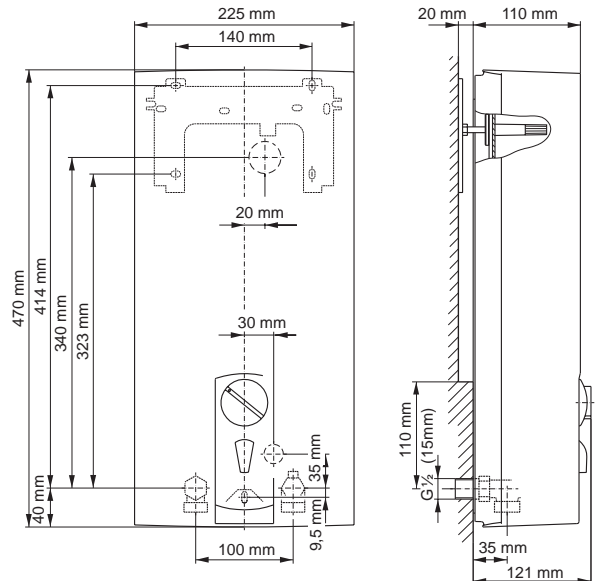
- UNIT MUST BE EARTHED !
- HOT AND COLD PIPES IN CORRECT POSITION.
- NO SAFETY VALVES REQUIRED.
- PRESSURE REDUCER REQUIRED (RECOMMENDED USE @ 4 BAR).
- Operation with preheated water of more than 25°C is not permitted.
- Material for the cold water pipe:  
Steel, Copper, or Plastic pipe systems
- Material for the hot water pipe:  
Copper or Plastic (DVGW Tested).



**!** Air in the cold water pipe will destroy the bare wire heating system of the unit. If the water supply has been turned off, switch power off to the unit & purge all air from pipes, once all air has been cleared, swtich the power on to the unit.

## TECHNICAL DATA

Bill of Quantities Description	DHB 12 Si	DHB 18 Si	DHB 21 Si	DHB 24 Si	DHB 27 Si
Rated power - kW-Voltage	12kW~400V	18kW~400V	21kW~400V	24kW~400V	27kW~400V
Power Connection @ 400V-~Amps	17.3 amps	26 amps	30.3 amps	34.6 amps	39 amps
Circuit Breaker & Cable Size	20amp/2.5mm	30amp/6mm	35amp/6mm	40amp/10mm	40amp/10mm
Tank Capacity - Litres	0,4				
Tank Material	Copper				
Type	Closed - Pressurized				
Rated overpressure - MPa (bar)	1 (10)				
Weight - Kg	5,2				
Protection Class -as per EN60335	1				
Protection mode -as per EN60529	IP 25				
Water connection	G 1/2" - 15mm				
Electrical connection	3 Lives & an Earth (3/PE) ~ 380V - 400V - 415V				
VDEW approval	Yes				
SABS approval	Yes				
Heating system - Element Area of use	Bare Wire - Suiteable for Hard Water Especially for water with high lime content				
Switching On - Flow volume	> 3.0 L/min	> 3.4 L/min	> 3.6 L/min	> 3.8 L/min	> 4.0 L/min
Switching On - Pressure (bar)	1.5bar (0.15MPa) Minium Pressure Needed				



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