

Technical Bulletin

Installation: G3 compliance with heat pumps

WITH CERTAIN HEAT PUMPS, THERE IS NO NEED TO INSTALL AN ADDITIONAL HIGH LIMIT STAT OR 2 PORT VALVE WHEN CONNECTED TO AN UNVENTED HOT WATER CYLINDER. OTHER HEATPUMPS DO REQUIRE A STANDARD HIGH LIMIT PROTECTION.

The Indoor unit (IDU) of the **Bosch CS3400/5800/7000/7400** systems incorporates a high limit stat (a non-self-resetting energy cut-out) set to 95°C. If the high limit stat activated, the power to both the heat pump and the additional heater will be interrupted. This will stop the additional heater and heat pump from working and cease further heating of the hot water cylinder.

The HP itself (compressor alone) will not go above 75°C. Due to these safety features, there is no need to add an additional high limit thermostat to the unvented hot water cylinder or install a two port valve.

We have covered G3 regulations that state:

Unvented hot water storage systems – all systems

3.17 To minimize the danger from excessive pressure, unvented hot water storage systems should incorporate a minimum of two independent safety devices. These shall be in addition to any thermostat provided to control the desired temperature of the stored water. The selection of safety devices should take account of the physical location of the devices, and the design, configuration, location of components and performance characteristics of the system to which they are attached.

3.18 An acceptable approach might consist of:

- a. a non-self-resetting energy cut-out to disconnect the supply of heat to the storage vessel in the event of the storage system over-heating; **(high limit cut off built in)** and*
- b. a temperature relief valve or a combined temperature and pressure relief valve to safely discharge the water in the event of serious over-heating. **(This is factory fitted on the greenstorage HP cylinder and must not be removed, if a third-party cylinder is used then one MUST be fitted)***

Alternative approaches to this are acceptable provided that they provide an equivalent degree of safety.

For the CS2000 heat pump, please ensure G3 compliance is met, Two safety devices will need to be fitted by the installer, the CS2000 **does not incorporate a built in high limit cut off** like the other models mentioned previously.

Reference the G3 compliance information above and visit the government website for any changes that may have occurred since this technical bulletin

The method taken to comply may be a non self resetting high limit thermostat or a 2 port valve to stop the flow of water from the heat source.

If any other heat source is connected to the cylinder (solar for example), then this should also adhere to the G3 regulations. This information is given along side any information in the manufacturers instructions for both the heat pump and domestic hot water cylinder. Please ensure that current regulations are adhered to as well as the information contained in this TB