

Domestic Heating Design Guide - System Criteria - page 1

See section 1.3.2 of the Domestic Heating Design Guide for advice on the completion of this sheet

Job information

Job

Page 1 of

Address and location description

System Description of Operation

Describe how the system has been designed to operate

Heat loss for the property under design conditions (W) – see section 2.7

Air permeability of the property in m³/(h·m²) (at 50 Pa) – see section 2.5.4.1

Control system hysteresis – see section 3.8

Heat loss for the property under typical conditions (W) – see section 2.7

Method of assessing the infiltration rate of the property – see section 2.5.4.1

Heat Generators		nominal output rating (W) – see section 5.7.1	output rating (W) – see section 5.7.2	Flow temperature space heating (°C) – see section 5.5.1	stored domestic hot water reheat (if required, °C) – see section 4.5.1.2	Identifier on drawing – see section 5.5.2	Installation location in property	Checked by
Manufacturer & Model	Type – see section 1.6							

Notes relating to heat generators - e.g. fuelling or supply requirements, division of heating load, sized to space heat and/or domestic hot water peak load – see sections 5.7 and A.6

Domestic Hot water storage - if required		Minimum required standard cylinder volume (litres) – see section 4.5.1.1	Design temperature differential across heat exchanger (°C) - see section 5.5.1	Target cylinder temperature outside of a thermal disinfection routine) (°C) – see section 4.5.1.1	Identifier on drawing – see section 5.5.2	Installation location in property
Manufacturer & Model	Recommended minimum cylinder heat exchanger rating (W) – see section 4.5.1.2	Mfr. listed cylinder heat exchanger rating (W)				

Notes relating to domestic hot water storage - e.g. access or structural limitations and schedule (see section 3.5)

Commissioning Checks

‘Checked by’ column to be initialised during commissioning

Name of person checking

Date of checking

Signature

Domestic Heating Design Guide - System Criteria - page 2

See section 1.3.2 of the Domestic Heating Design Guide for advice on the completion of this sheet

Job information

Job _____ Page 2 of _____

Page 2 of 2

Heat Emitters - continue on additional pages if required[illegible]

Notes relating to heat emitters – see section 5.6

Zoning (space heating) - continue on additional pages if required

Number	Flow temperature (°C) – see section 5.5.1	Target temperature (indoor design temperature) – see section 2.5.2.2	Setback temperature (°C) – see section 3.5	Control strategy – see section 3.5	Schedule – see section 3.5	
1						the sole use of the person making the decision
2						
3						
4						
5						
6						

Notes relating to zoning – see section 3.9

Control components - continue on additional pages if required

[illegible]

Notes relating to control components – see section 3.6, 3.7 and 3.8

Commissioning Checks

'Checked by' column to be initialled during commissioning

Name of person checking Date of checking

Signature _____

Domestic Heating Design Guide - System Criteria - page 3

See section 1.3.2 of the Domestic Heating Design Guide for advice on the completion of this sheet

Job information

Job

Page 3 of

Circulators - continue on additional pages if required			Identifier on drawing – section 5.5.2	Installation location in property	Checked by
--	--	--	---------------------------------------	-----------------------------------	---

Valves - continue on additional pages if required			Identifier on drawing – section 5.5.2	Installation location in property	This publication is supplied by CIBSE for the sole use of the person making the download. The content remains the copyright property of CIBSE.
Manufacturer & Model	Default position and settings – sections 4.5.3, 4.9.2, 5.4.2, 5.5.5.2, 5.9.1.2 and 5.6.4				
Notes relating to valves – sections 4.5.3, 4.9.2, 5.4.2, 5.5.5.2, 5.9.1.2 and 5.6.4					

Expansion vessels - continue on additional pages if required						This publication is supplied by CIBSE for the sole use of the person making the download. The content remains the copyright property of CIBSE.		
Manufacturer & Model	Listed nominal volume (l)	Required nominal volume (l) – sections 4.5.3, 5.9.1.2 and 5.9.1.4	Pre-charge (bar) – section 5.9.1.2	Safety valve setting (bar) – section 5.9.1.2	System static pressure at expansion vessel (bar) – section 5.9.1.2		Identifier on drawing – section 5.5.2	Installation location in property
System fill pressure (bar) – section 5.9.1.4								
Notes relating to expansion vessels – sections 4.5.3, 5.9.1.2 and 5.9.1.4								

Other equipment - equipment not already listed - continue on additional pages if required				Identifier on drawing – section 5.5.2	Installation location in property	This publication is supplied by CIBSE for the sole use of the person making the download. The content remains the copyright property of CIBSE.
Description	Manufacturer & Model	Settings and notes				
Notes relating to other equipment						

Water treatment						This publication is supplied by CIBSE for the sole use of the person making the download. The content remains the copyright property of CIBSE.	
Treatment	Make	Volume used (l) – section 5.12	Target concentration (%) – section 5.12	Date treated	Notes		
Inhibitor							
Antifreeze							
Biocide							
	Manufacturer & Model	Notes			Identifier on drawing – section 5.5.2		Installation location in property
System filter							
Notes relating to water treatment – section 5.12							

Commissioning Checks

Name of person checking

Date of checking

Signature

‘Checked by’ column to be initialised during commissioning

Domestic Heating Design Guide - System Criteria - page 4

See section 1.3.2 of the Domestic Heating Design Guide for advice on the completion of this sheet

Job information

Job

Page 4 of

Critical design parameters

Space heating	Customer notes		Checked by
Indoor design temperature (°C) (section 2.5.2.2)	Your heating system has been designed to heat your main living space to this level (see the Zoning section of this System Criteria for any other room differences to this).		
Outdoor design temperature (°C) (section 2.5.2.3)	Your system has been designed assuming this outdoor temperature, based on recommended regional and other criteria (see the Zoning section for any room differences).		
Design percentile coldest day (n th) (section 2.5.2.3)	The proportion of the heating year that the system has spare heating capacity (i.e. 95th, 98th, 99th). On remaining other days, the system may take longer to heat up, or not quite reach the indoor design temperature. The smaller this number, the less oversized your system will be, thereby allowing more efficient operation, and cheaper installation and operation.		
Space heating control strategy (section 3.5)	Summary of how the controls of your space heating are configured.		
Space heating setback temperature (°C) (section 3.5)	The temperature that your property is heated to overnight or when unoccupied.		
Space heating intermittent heating allowance (%) (section 2.5.5.1 and 2.7)	System oversizing to allow recovery from setback to design room temperature. The smaller the number over 100%, the less oversized your system will be, and thereby allowing your system to be smaller, more efficient, and cheaper to install and operate. <i>Note:</i> The system will take longer to reach the indoor design temperature.		
Domestic Hot Water			
Domestic hot water provision	How your heating system delivers domestic hot water (i.e. on-demand, via a hot water storage cylinder, or by other system here identified).		
Domestic hot water control strategy (see section 3.5)	This summarises how the controls for your domestic hot water are configured. If your system includes a hot water cylinder with domestic hot water priority control, the cylinder is normally reheated during a space heating setback period (e.g. overnight). This approach ensures that space heating remains fully available during priority periods while allowing your system to be smaller, more efficient, and more cost-effective to install and operate.		
Domestic hot water provision (sections 4.5.1.1 and 4.5.1.2)	Capacity of system to deliver domestic hot water: - maximum number of simultaneously running outlets, if an on-demand system - minimum number of baths and/or showers expected per day, if a hot water cylinder system		
Design cylinder reheat time (minutes) (section 4.5.1.2)	If used, how quickly the system could reheat the hot water storage cylinder from cold, albeit normally it does not empty. Normal reheat typically occurs over multiple hours. Reheat times of less than 120 minutes typically result in heat generator oversizing that are more expensive to install and operate.		
Bacterial contamination risk assessment summary – section 4.9.1	Summary of bacterial contamination (i.e. Legionella) risk assessment undertaken on your domestic hot water system (full report will be available in your handover pack).		
Bacterial contamination disinfection routine – section 4.9.1	Summary of how the risk of bacterial contamination will be minimised with your system.		
Target cylinder temperature (°C) (sections 4.5.1.1)	during thermal disinfection	outside thermal disinfection The temperature to which your system has been configured to heat stored domestic hot water during any bacterial contamination thermal disinfection routine, and the lowest temperature it is allowed to drop to outside of any routine. Your system should always have the capability to raise all stored water to at least 60 °C.	
Scalding prevention strategy (section 4.9.2)	Summary of how the risk of scalding will be minimised.		
General: a record of any other critical design decisions and any general notes (including any reasons for going outside recommended ranges and any associated mitigation methods)			
Critical design parameter sign off			
<i>Designer – I, the undersigned designer, have, in good faith, designed the above system to be safe, efficient, and capable of achieving the desired operation under all design conditions, while meeting all regulatory and non-regulatory requirements.</i>			
Designer name	Signature	Date	
Details of designer qualifications and competencies:			
Design checker's name	Signature	Date	
Details of design checker qualifications and competencies:			
<i>I, the undersigned client, confirm that all elements of the above design have been explained to me, and I am satisfied with the design.</i>			
Client's name	Signature	Date	
For further clarification of the notes on this sheet, client advice leaflets are available at: http://www.cibse.org/dbsp-factsheets			

Commissioning Checks

'Checked by' column to be initialled during commissioning

Name of person checking Date of checking

Signature