

# DIN EN 13203-6:2022-11 (E)

## Gas-fired domestic appliances producing hot water - Part 6: Assessment of energy consumption of adsorption and absorption heat pumps

---

<b>Contents</b>		<b>Page</b>
European foreword .....		4
Introduction .....		5
1	Scope .....	6
2	Normative references .....	6
3	Terms and definitions .....	6
4	General test conditions .....	7
4.1	Reference conditions .....	7
4.2	Measurement uncertainties .....	9
4.2.1	General .....	9
4.2.2	Steady-state conditions .....	9
4.3	Test conditions .....	10
4.3.1	General .....	10
4.3.2	Test room .....	10
4.3.3	Water supply .....	10
4.3.4	Initial adjustment of the appliance .....	10
4.3.5	Conditions for the determination of the maximum load profile .....	10
4.3.6	Electrical supply .....	10
5	Determination of the energy consumption of the appliance .....	11
5.1	General .....	11
5.1.1	Filling of the storage .....	12
5.1.2	Stabilization at cold .....	13
5.1.3	Heating up time [M1] .....	13
5.1.4	Standby gas and electrical power input [M2] .....	14
5.2	Load profiles (M3) .....	16
5.3	Determination of the energy recovered by the useful water .....	16
5.4	Calculation of gas energy .....	16
5.5	Calculation of electrical energy .....	17
5.5.1	Calculation of daily electrical energy consumption .....	17
5.5.2	Corrections to apply for fans and circulation water pumps .....	18
5.6	Measurement of energy consumption in standby mode .....	20
5.7	Determination of daily auxiliary electrical energy consumption in off mode .....	20
6	Eco design related products data .....	20
6.1	Water heating energy efficiency .....	20
6.2	Smart control factor (SCF) and smart .....	21
6.3	Annual fuel consumption (AFC) .....	21
6.4	Annual electricity consumption (AEC) .....	21
6.5	Mixed water at 40 °C (V40) for storage water heaters .....	21
Annex A (informative) Test conditions .....		23
Annex B (informative) Exemples of test rig and measurement devices .....		24
Annex C (informative) Declaration of the Maximum Load Profile .....		25

<b>Annex ZA (informative) Relationship between this European Standard and the ecodesign requirements of Commission Regulation (EU) n° 814/2013 [OJEU L239 of 6 September 2013] aimed to be covered .....</b>	<b>26</b>
<b>Annex ZB (informative) Relationship between this European Standard and the energy labelling requirements of Commission Delegated Regulation (EU) No 812/2013 [OJEU L239 of 6 September 2013] aimed to be covered .....</b>	<b>27</b>
<b>Annex ZC (informative) Relationship between this European Standard and the ecodesign requirements of Commission Regulation (EU) n° 813/2013 [OJEU L239 of 6 September 2013] aimed to be covered .....</b>	<b>29</b>
<b>Annex ZD (informative) Relationship between this European Standard and the energy labelling requirements of Commission Delegated Regulation (EU) No 811/2013 [OJEU L239 of 6 September 2013] aimed to be covered .....</b>	<b>30</b>
<b>Bibliography .....</b>	<b>32</b>