

DIN EN 613:2022-05 (E)

Independent closed-fronted gas-fired type B₁₁, type C₁₁,
type C₃₁ and type C₉₁ heaters;

Contents	Page
European foreword	4
1 Scope	6
2 Normative references	6
3 Terms and definitions	8
3.1 Independent gas-fired heaters	8
3.2 Appliance construction	8
3.3 Appliance performance	12
4 Classification of appliances	13
4.1 Classification according to the nature of the gases used (categories)	13
4.2 Classification according to the method of evacuation of the products of combustion	14
5 Constructional requirements	15
5.1 General	15
5.2 Adjusting, control and safety devices	20
5.3 Ignition devices	23
5.4 Flame supervision systems	23
5.5 Burners	24
5.6 Gas pressure test points	24
6 Operational requirements	24
6.1 Soundness of the gas circuit and combustion products circuit, and evacuation of the combustion products	24
6.2 Heat inputs	25
6.3 Temperature of various parts of the appliance	25
6.4 Ignition, cross-lighting and flame stability	26
6.5 Pressure regulators	27
6.6 Combustion	27
6.7 Sooting (live fuel effect gas-fired heaters only)	28
6.8 Spillage monitoring system	28
6.9 Flame supervision device	29
6.10 Efficiency	30
7 Test methods	30
7.1 General	30
7.2 Soundness of the gas circuit and combustion products circuit and evacuation of the combustion products	33
7.3 Heat inputs	34
7.4 Temperature of various parts of the appliance	36
7.5 Ignition, cross-lighting and flame stability	38
7.6 Pressure regulators	42
7.7 Combustion	43
7.8 Sooting (live fuel effect gas-fired heaters only)	47
7.9 Spillage monitoring system	48
7.10 Flame supervision device	50
7.11 Efficiency	51
8 Marking and instructions	53

8.1	Marking	53
8.2	Instructions	56
Annex A (normative) Hood test method (type B appliances)		71
Annex B (informative) Gas designations in force in the various EU countries		75
Annex C (normative) Apparatus for the determination of the smoke number		77
Annex D (informative) Symbols and abbreviations		78
Annex E (normative) Calculation of conversions of NOx		79
Annex F (normative) Arrangement for measuring the leakage rate		80
Annex G (normative) Special national conditions		81
Bibliography		82