

Contents

Foreword.....	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions.....	6
3.1 Independent gas-fired convection heaters.....	6
3.2 Gases.....	7
3.3 Appliance construction	8
3.4 Adjusters and controls	12
3.5 Appliance performance	13
3.6 Marking of the appliance and packaging.....	15
4 Classification of appliances.....	15
4.1 Classification according to the nature of the gases used (categories).....	15
4.2 Classification according to the method of evacuating the products of combustion (types)	18
5 Constructional requirements	20
5.1 Conversion to different gases	20
5.2 Materials and method of construction	21
5.3 Accessibility for use and maintenance.....	22
5.4 Connections.....	22
5.5 Soundness of the gas circuit	23
5.6 Soundness of the combustion circuit.....	23
5.7 Supply of combustion air and evacuation of combustion products	24
5.8 Electrical equipment	25
5.9 Safety in the event of fluctuation, interruption and restoration of the auxiliary energy.....	25
5.10 Air proving devices	26
5.11 Adjusting, control and safety devices	26
5.12 Ignition burner	29
5.13 Burners.....	30
5.14 Motors and fans.....	30
5.15 Gas pressure test points	30
5.16 Confirmation of operation	30
6 Operational requirements	31
6.1 General	31
6.2 Soundness of the gas circuit and combustion products circuit , and evacuation of the combustion products	31
6.3 Heat inputs.....	32
6.4 Temperature of various parts of the appliance.....	32
6.5 Ignition, cross-lighting and flame stability	33
6.6 Pressure governors	34
6.7 Combustion	35
6.8 Sooting (live fuel effect appliances only)	35
6.9 Spillage monitoring system (type B appliances only).....	36
6.10 Flame supervision device	37
6.11 Air proving device	37
6.12 Efficiency	39
7 Test methods	39
7.1 General	39

7.2	Soundness of the gas circuit and combustion products circuit, and evacuation of the combustion products	47
7.3	Heat inputs	49
7.4	Temperature of various parts of the appliance	51
7.5	Ignition, cross-lighting and flame stability	53
7.6	Pressure governors	58
7.7	Combustion	59
7.8	Sooting (live fuel effect appliances only)	64
7.9	Spillage monitoring system (type B appliances only)	65
7.10	Flame supervision device	67
7.11	Air proving device	68
7.12	Efficiency	70
8	Marking and instructions	72
8.1	Marking	72
8.2	Instructions	75
Annex A	(informative) National situations	98
Annex B	(normative) Classification of appliances	110
Annex C	(normative) Requirements and test methods for separate air supply and combustion products evacuation ducts	115
Annex D	(normative) High voltage ignition circuits	120
Annex E	(informative) Gas valve arrangements	122
Annex F	(informative) Spillage test methods	123
Annex G	(normative) Calculation of conversions of NO _x	129
Annex H	(normative) Apparatus for the determination of the smoke number	130
Annex I	(informative) Means of identification of the types of gas in force in the various countries	131
Annex J	(normative) Special national conditions	132
Annex K	(informative) A-deviations	133
Annex ZA	(informative) Clauses of this European Standard addressing essential requirements or other provisions of EU Directives	134