

# DIN EN 1319:2010-10 (E)

## Domestic gas-fired forced convection air heaters for space heating, with fan-assisted burners not exceeding a net heat input of 70 kW

---

<b>Contents</b>		<b>Page</b>
Foreword .....		4
1	Scope .....	6
2	Normative references .....	6
3	Terms and definitions .....	8
3.1	Appliance and its constituent parts .....	8
3.2	Adjustment, control and safety devices .....	11
3.3	Operation of the appliance .....	13
3.4	Gases .....	16
3.5	Conditions of operation and measurement .....	18
3.6	Marking of the appliance and packaging .....	19
4	Classification of systems .....	19
4.1	Classification according to the nature of the gases used (Categories) .....	19
4.2	Classification according to the gases capable of being used .....	19
4.3	Classification according to the mode of evacuation of the combustion products .....	21
5	Construction and design requirements .....	23
5.1	General .....	23
5.2	Adjusting, control and safety devices .....	30
5.3	Ignition devices .....	37
5.4	Flame supervision system .....	37
5.5	Start-gas flame establishment .....	38
5.6	Main flame establishment .....	41
5.7	Main burner .....	41
5.8	Facility for remote control .....	41
5.9	Thermostats and control of air temperature .....	42
5.10	Gas pressure test points .....	42
6	Operational requirements .....	43
6.1	Safety of operation .....	43
6.2	Efficiency .....	51
7	Test methods .....	52
7.1	General .....	52
7.2	Construction and design .....	61
7.3	Safety of operation .....	61
7.4	Efficiency .....	91
8	Marking and instructions .....	99
8.1	Marking of the appliance .....	99
8.2	Marking of the packaging .....	100
8.3	Utilization of symbols on the appliance and packaging .....	101
8.4	Instructions .....	103
9	Evaluation of POCEC conformity and their associated terminals .....	105
9.1	General .....	105
9.2	Type testing .....	105
9.3	Factory production control (FPC) .....	106

<b>Annex A (informative) National situations</b>	<b>108</b>
A.1 General	108
A.2 Categories listed in the body of the standard and marketed in different countries	108
A.3 Appliance supply pressures corresponding to the categories given in A.2	110
A.4 Special categories marketed nationally or locally	111
A.5 Test gases corresponding to the special categories given in A.4	117
A.6 Gas connections in the various countries	120
A.7 Flue connections in the various countries	122
<b>Annex B (informative) Equivalence rules</b>	<b>123</b>
B.1 Conversion to categories within a restricted Wobbe index range	123
B.2 Conversion to categories within an identical Wobbe index range	123
B.3 Conversion to categories within a wider Wobbe index range	124
<b>Annex C (normative) Classification according to the evacuation of the combustion</b>	<b>125</b>
C.1 Type B1	125
C.2 Type B2	126
C.3 Type B4	127
C.4 Type B5	129
C.5 Type C1	130
C.6 Type C3	131
<b>Annex D (normative) Requirements and tests for the ducting of C6 appliances</b>	<b>132</b>
D.1 Requirements	132
D.2 Test methods	132
<b>Annex E (informative) A-deviations</b>	<b>136</b>
E.1 General	136
E.2 Switzerland	136
<b>Annex F (normative) Special national conditions</b>	<b>137</b>
F.1 General	137
F.2 Belgium	137
F.3 Italy	137
F.4 Poland	137
<b>Annex G (informative) Identification of gas types in use in various countries</b>	<b>138</b>
<b>Annex H (informative) National solutions for countries whose national bodies are Affiliate Members of CEN</b>	<b>139</b>
H.1 Categories listed in the body of the standard and marketed in different countries	139
H.2 Appliance supply pressures corresponding to the categories given in H.1	139
H.3 Special categories marketed nationally or locally	139
H.4 Gases and test pressures corresponding to the special categories given in H.3	139
<b>Annex I (informative) Calculation of conversions of NOx</b>	<b>140</b>
<b>Annex J (informative) An example of sampling plans</b>	<b>141</b>
J.1 Sampling plans	141
J.2 Inspection levels and procedures	142
<b>Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 90/396/EEC</b>	<b>143</b>

<b>Annex ZB (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Directive .....</b>	<b>145</b>
<b>ZB.1 Scope and relevant characteristics .....</b>	<b>145</b>
<b>ZB.2 Procedure(s) for attestation of conformity of [construction products] .....</b>	<b>147</b>
<b>ZB.3 CE marking and labelling .....</b>	<b>150</b>
<b>Bibliography .....</b>	<b>152</b>