charnwood

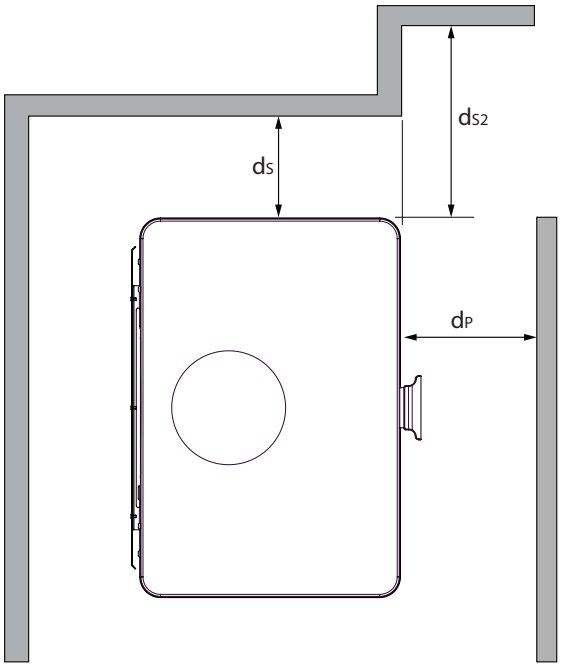
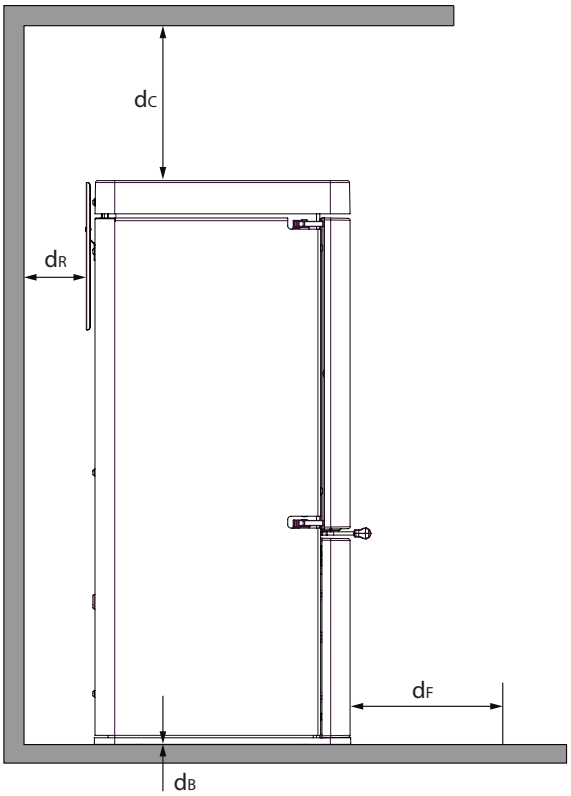
BS EN 16510-1:2022
EN 16510-1:2022 (E)

Model identifier(s): Arc 5 Store Stand
Test laboratory: RRF
Notified body no: 1625
Test report no: 40 16 4302
Harmonized standards: EN16510-1:2022 EN16510-2-1
Designated fuel: Wood logs

Designation of appliance	Room sealed	Leakage declaration	Combustion air supply connection	Door closure	Tightness requirement
Type BE	[N.A.]	No	Yes	No specific requirement	No specific requirement

No.	Parameter	Unit	Explanation	Value
1	^{P}NOM	kW	The nominal heat output or a range of outputs (dependent on fuel types), rounded to the nearest one decimal place	5
2	^{P}SHnom	kW	The nominal space heat output or a range of outputs (dependent on fuel types), rounded to the nearest one decimal place	5.4
3	^{P}Wnom	kW	The nominal water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types), rounded to the nearest one decimal place	NPD
4	^{P}part	kW	The part load heat output or a range of outputs (dependent on fuel types) if specified, rounded to the nearest one decimal place	NPD
5	^{P}SHpart	kW	The part load space heat output or a range of outputs (dependent on fuel types) if specified, rounded to the nearest one decimal place	NPD
6	^{P}Wpart	kW	The part load water output (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, rounded to the nearest one decimal place	NPD
7	^{P}slow	kW	The heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, rounded to the nearest one decimal place	NPD
8	^{P}SHslow	kW	The space heat output at slow combustion or a range of outputs (dependent on fuel types) if specified, rounded to the nearest one decimal place	NPD
9	^{P}Wslow	kW	The water heat output at slow combustion (if an integral boiler is fitted) or a range of outputs (dependent on fuel types) if specified, rounded to the nearest one decimal place	NPD
10	^{P}acc in	kW	Accumulator heat input, in kw or w for kachelofen inset appliances only, rounded to the nearest one decimal place	NPD
11	^{T}acc in	°C	Temperature at the separate heat exchanger inlet, for kachelofen inset appliances only, rounded to the nearest integer	NPD
12	ζacc	Pa	The flow resistance of the separate heat exchanger as used in the test, for kachelofen inset appliances only, rounded to the nearest integer	NPD
13	ηnom	%	The appliance efficiency at nominal heat output, rounded to the nearest integer	81
14	ηpart	%	The appliance efficiency at part load heat output, rounded to the nearest integer	NPD
15	ηS	%	The appliance seasonal space heating efficiency at nominal heat output, rounded to the nearest integer	71
16	EEI	-	The energy efficiency index, rounded to the nearest integer	107
17	^{CO}nom (13 % O_2)	mg/m^3	Co emission at 13 % oxygen content at nominal heat output, rounded to the nearest integer	1000
18	^{CO}part (13 % O_2)	mg/m^3	Co emission at 13 % oxygen content at part load heat output if specified, rounded to the nearest integer	NPD
19	^{CO}slow (13 % O_2)	mg/m^3	Co emission at 13 % oxygen content at heat output at slow combustion if specified, rounded to the nearest integer	NPD
20	^{NO}xnom (13 % O_2)	mg/m^3	Nox emission at 13 % oxygen content at nominal heat output, rounded to the nearest integer	115
21	^{NO}xpart (13 % O_2)	mg/m^3	Nox emission at 13 % oxygen content at part load heat output if specified, rounded to the nearest integer	NPD
22	^{NO}xslow (13 % O_2)	mg/m^3	Nox emission at 13 % oxygen content at heat output at slow combustion if specified, rounded to the nearest integer	NPD
23	^{OGC}nom (13 % O_2)	mg/m^3	Hydrocarbon emission at 13 % oxygen content at nominal heat output, rounded to the nearest integer	85
24	^{OGC}part (13 % O_2)	mg/m^3	Hydrocarbon emission at 13 % oxygen content at part load heat output if specified, rounded to the nearest integer	NPD
25	^{OGC}slow (13 % O_2)	mg/m^3	Hydrocarbon emission at 13 % oxygen content at heat output at slow combustion if specified, rounded to the nearest integer	NPD
26	"PMnom (13 % O_2)"	mg/m3	Particulate matter emission at 13 % oxygen content at nominal heat output, rounded to the nearest integer	29
27	"PMpart (13 % O2)"	mg/m3	particulate matter emission at 13 % oxygen content at part load heat output if specified, rounded to the nearest integer	NPD

No.	Parameter	Unit	Explanation	Value
28	$^{PM}_{slow}$ (13 % O_2)	mg/m^3	Particulate matter emission at 13 % oxygen content at heat output at slow combustion if specified, rounded to the nearest integer	NPD
29	$^{P}_{nom}$	Pa	Minimum flue draught at nominal heat output, rounded to the nearest integer	12
30	$^{P}_{part}$	Pa	Minimum flue draught at part load heat output if specified, rounded to the nearest integer	NPD
31	$^{P}_{slow}$	Pa	Minimum flue draught at heat output at slow combustion if specified, rounded to the nearest integer	NPD
32	$^{P}_{W}$	kPa (bar)	The permissible maximum water operating pressure, if applicable, to be given with 1 decimal	NPD
33	$^{d}_{R}$	mm	The minimum distances from the rear to combustible material, rounded to the nearest integer	200
34	$^{d}_{S}$	mm	The minimum distances from the sides to combustible material, rounded to the nearest integer	300
35	$^{d}_{C}$	mm	The minimum distances from the top to combustible material in the ceiling, rounded to the nearest integer	750
36	$^{d}_{p}$	mm	The minimum distances from the front to combustible material, rounded to the nearest integer	800
37	$^{d}_{F}$	mm	The minimum distances from the front to combustible material in bottom front radiation area, rounded to the nearest integer	1500
38	$^{d}_{s2}$	mm	The minimum distances from the front to combustible material in side front radiation area, rounded to the nearest integer	1500
39	$^{d}_{B}$	mm	The minimum distances below the bottom (not regarding feet) to combustible material, rounded to the nearest integer	0
40	$^{d}_{non}$	mm	The minimum distances to non-combustible walls, rounded to the nearest integer	0|0|0|NPD
41	s	mm	Protective insulation according to manufacture r's instructions	0|0|0|0
42	$^{el}_{SB}$	kW	The consumption of electrical auxiliary energy at standby, to be given with 3 decimals	NPD
43	$^{el}_{max}$	kW	The consumption of electrical auxiliary energy at nominal heat output, to be given with 3 decimals	NPD
44	$^{el}_{min}$	kW	The consumption of electrical auxiliary energy at part load heat output, to be given with 3 decimals	NPD
45	E, f	V, Hz	Power supply voltage, frequency, rounded to the nearest integer	NPD
46	$^{W}_{max}$	W	Maximum electric power input, rounded to the nearest integer	NPD
47	$^{T}_{snom}$	°C	The flue gas outlet temperature at nominal heat output, rounded to the nearest integer	323
48	$^{T}_{spart}$	°C	"The flue gas outlet temperature at part load heat output, rounded to the nearest integer (to be given for pellet operation only)"	NPD
49	$^{T}_{class}$	-	Chimney designation according to the appropriate chimney standard	T400 - G
50	ϕf,g nom	g/s	The flue gas mass flow at nominal heat output, rounded to the nearest one decimal place	4.4
51	ϕf,g part	g/s	The flue gas mass flow at part load heat output rounded to the nearest one decimal place (to be given for pellet operation only)	NPD
52	$^{V}_{h}$	m^3/h	The standing air loss, if specified, rounded to the nearest one decimal place	NPD
53	CON or INT	-	Whether the appliance is capable of continuous operation (con), whether the appliance is capable of intermittent operation (int)	INT
54	$^{d}_{out}$	mm	The diameter of the flue gas outlet, rounded to the nearest integer	154
55	L, H, W	mm	The overall dimensions of the appliance (length, height, width), rounded to the nearest integer	458/983/453
56	m	kg	Mass of the appliance, rounded to the nearest integer (Packed)	143
57	$^{m}_{chim}$	kg	The maximum load of a chimney the appliance may carry, to be rounded to the nearest integer	120
58		-	Meaning "read and follow the user operating instructions"	NPD

NOTE 1 For minimum clearance distances see 'Specifications' in Installation Instructions and following diagram

Please see table on Page 2 of 3 for for figures.