

TECHNICAL SHEET of the fireplace stove
Arctic 12 with exchanger
 (variant without heat plate)
 (variant with heat plate)



Suitable fuel:

As concerns suitable fuel to be employed, see the chapter 2.2 Fuel in the General Manual of Operation.


Proper operation:

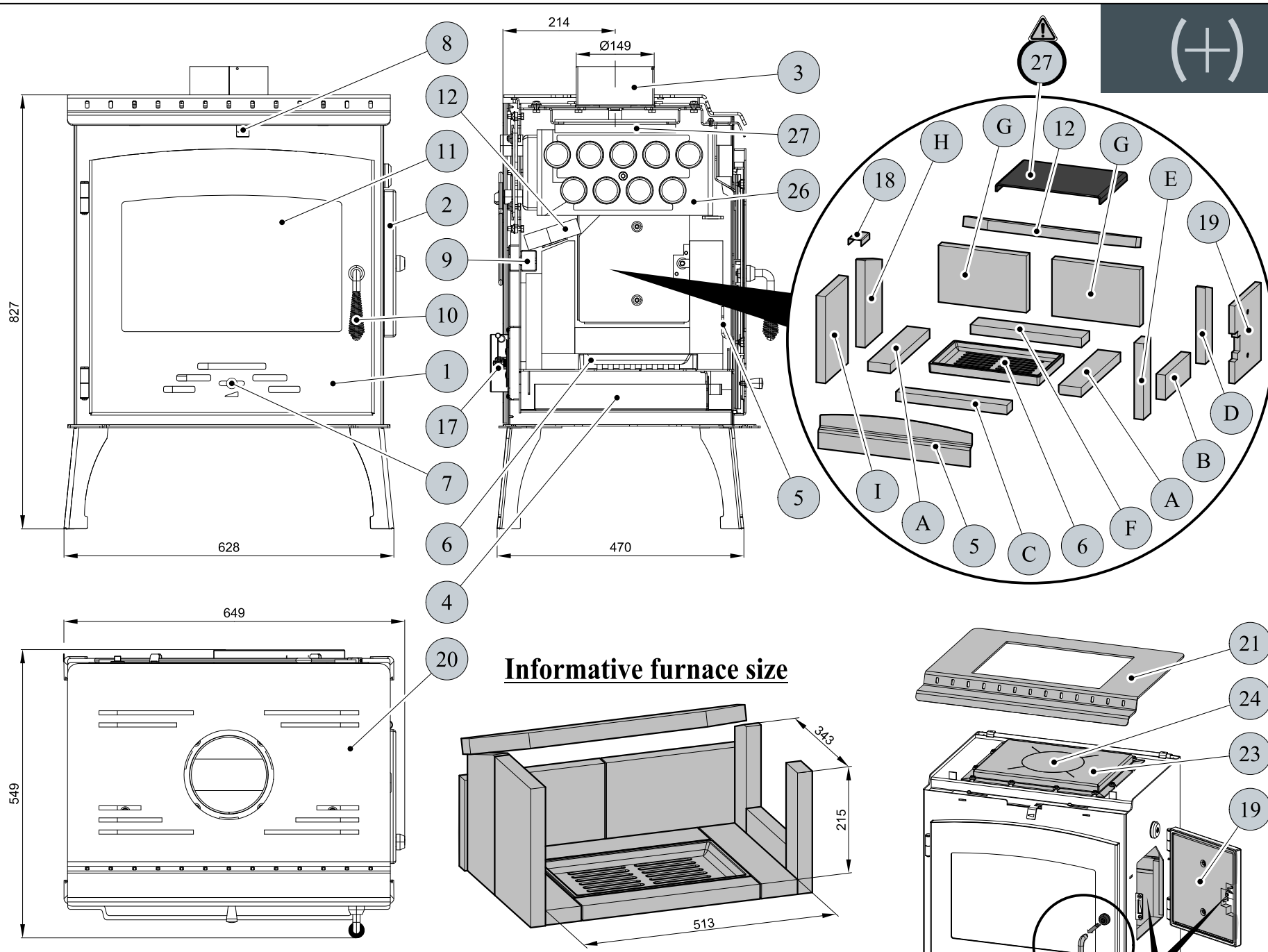
As concerns the proper and safe operation of the fireplace stove, see the chapters 2. Description of the combustion process and 5. Operating instructions in the General Manual of Operation.

INSTRUCTIONS FOR THE CONTROL OF COMBUSTION PROCESS:

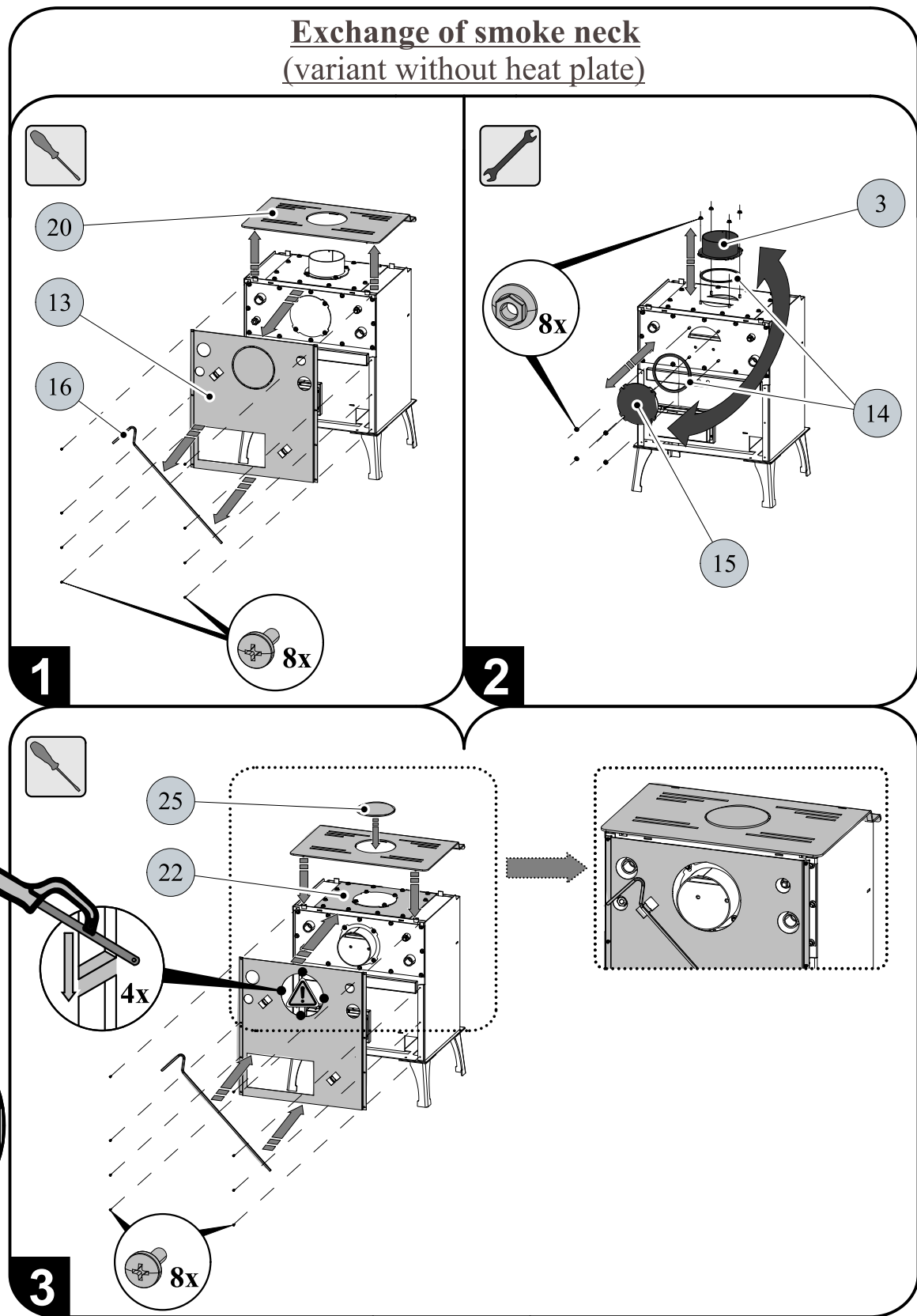
Fuel	Output of the heating device							
	100%		33%		100%		33%	
	Amount of fuel		Primary air		Secondary air		Tertiary air	
Blockwood	3,4 kg/h	1,1 kg/h	open 8%	open 3%	open 100%	open 33%	non-controllable	
Ecological briquettes	3,4 kg/h	1,1 kg/h	open 30%	open 10%	open 100%	open 33%	non-controllable	
Coal briquettes	2,7 kg/h	0,9 kg/h	open 100%	open 33%	open 100%	open 33%	non-controllable	

TECHNICAL DATA:	Blockwood	Ecological briquettes	Coal briquettes		
Achieved heat output (100%)	12,4 kW	12,5 kW	12,1 kW	Height	827 mm
Reduced heat output (33%)	4,1 kW	4,1 kW	4 kW	Width	649 mm
Output delivered by the stove body only	4 kW	3,4 kW	5,1 kW	Depth	549 mm
Output available for heating of water	8,4 kW	9,1 kW	7 kW	Weight (variant without heatplate / with heat plate)	159/153kg
Maximum stoking amount of the fuel	3,4 kg/h	3,4 kg/h	2,7 kg/h	Diameter of the smoke flue	150 mm
Average temperature of combustion products behind the smoke flue neck	262 °C	252 °C	230 °C	Maximum operating over-pressure of the exchanger	0,2 MPa
Maximum mass flow of dry combustion products	9,8 g/s	11,4 g/s	13,2 g/s	Water contents of the exchanger	8,5 l
Energy efficiency	81,6 %	79,5 %	80,2 %	Recommended heat gradient (t output – t input)	75 - 60 °C
Average concentration of CO ₂	9,92 %	8,86 %	7,46 %	Min. chimney stack draught in the smoke flue neck	12 Pa
Concentration of CO in combustion products at 13 % O ₂	3779 mg/Nm ³	4870 mg/Nm ³	1559 mg/Nm ³	Heating capacity (middle heat losses) at 12,5 kW	cca. 225 m ³
Dust at 13% O ₂	56 mg/Nm ³	139 mg/Nm ³	36 mg/Nm ³	Controllable output	4 - 12,5 kW
The amount of combustion air at nominal output	28 m ³ /h	31 m ³ /h	30 m ³ /h		
Tested in compliance with CSN EN 13 240:2002/A2:2005				CE	

 Variant with heatplate (poz. 24) is not cooking appliance according to standard EN 12 815



Informative furnace size



TECHNICAL DESCRIPTION:

Note	Name	Goods No.	Note	Name	Goods No.
1	Fire-box door/black	0470615005300	23	Hotplate cover/black (variant with heat plate)	0470615005070
2	Side-box door/black	0470615005310	24	Heatplate/black (variant with heat plate)	0470615005095
3	Smoke flue neck /black	0470315005007	25	Blind cover/black (variant without heat plate)	0470615005008
4	Ash pan/black	0470615005050	26	Exchanger/black	0470615006010
5	Protection/black	0470615005001	27	Upper lip - loose/black (only on variant without heat plate)	0470615005030
6	Grate/black	0020100100006	A	Brick 30x73x345	0470615005510
7	Controller of primary air/golden	0082010030005	B	Brick 30x80x219	0470615005511
8	Controller of secondary air /black	0470615005006	C	Brick 30x48x360	0470615005512
9	Tertiary air output	-	D	Brick 30x63x245	0470615005514
10	Lever lock of the fire-box door/golden	0470315006100	E	Brick 30x63x245	0470615005515
11	Refractory glass (285x445)	0470615005301	F	Brick 30x70x360	0470615005516
12	Lower lip - loose (30x105x560)	0470615005720	G	Brick 30x183x285	0470615005711
13	Rear cover	0470615005003	H	Brick 30x150x280	0470615005712
14	Flue gas duct packing cord 10x4 mm	0040210040005	I	Brick 30x198x280	0470615005713
15	Flue gas duct blind flange/black	0470315007002		Sealing cord of side door 10 mm (1050 mm)	0040010100005
16	Cleaning rod/black	0470615005080		Sealing cord of the door 10 mm (2570 mm)	0040010100005
17	Automatic air control (flap)	0431317006601		Sealing cord of the glass 10x4 mm (1500 mm)	0040210040005
18	Holder of the fire-clay/black	0470615005005		Glass holder sealing rope 8x2 mm (100 mm)	0040208020005
19	Plate (vermiculite)	0470615005311		Flue gas duct packing cord 10x4 mm (540 mm) (var. With heat plate)	0040210040005
20	Lid/black (variant without heat plate)	0470615005800		Flue gas duct packing cord 10x4 mm (1080 mm) (var. Without heat plate)	0040210040005
21	Lid/black (variant with heat plate)	0470615015800		Packing cord of body cover 10x4 mm (1330 mm)	0040210040005
22	Body cover/black (variant without heat plate)	0470615005025		Packing cord of exchanger 10x4 mm (1650 mm)	0040210040005