

CONFORMITY TO THE NORM EN 303-5:1999

ACTECO srl has tested on April 10 2012 the heating boiler for solid fuels

COMPACT 18 2012 - RED

manufactured by MCZ GROUP S.p.A., via La Croce, 8 - I - 33074 Vigonovo di Fontanafredda (PN) according to the efficiency prescriptions of the norm EN 303-5:1999, with the following results:

Water heat output	Efficiency	CO		NOx		OGC		Dust	
		mg/MJ	mg/Nm ³ (10% O ₂)	mg/MJ	mg/Nm ³ (10% O ₂)	mg/MJ	mg/Nm ³ (10% O ₂)	mg/MJ	mg/Nm ³ (10% O ₂)
kW	(%)								
17,0	93,8	119	245	90	185,8	1,8	3,8	19,4	39,6

The boiler complies with

CLASS 3

of clause 4.2.6 of the European standard EN 303-5:1999.

The boiler complies with

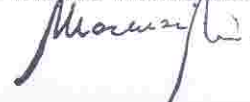
CLASS 5

of the European standard prEN 303-5:2012.

The results are listed in the test report Nr. 0304-12NB dated April 23 2012 included in the Technical File of the product.

Cordenons, 23.04.2012

Head of Test Laboratory
dr. Mario Marcuzzi



OVERENSSTEMMELSE MED STANDARD EN 303-5:1999

ACTECO srl har den 10. april 2012 testet varmekedlen til fast brændsel

COMPACT 18 2012 - RED

Fremstillet af MCZ GROUP S.p.A., via La Croce, 8 - I - 33074 Vigonovo di Fontanafredda (PN) I henhold til effektivitetsforskrifterne i standard EN 303-5:1999, med følgende resultater:

Vand varmeydelse	Effektivitet	CO	NOx	OGC	Støv
kW	(%)	mg/Nm ³ (10% O ₂)	mg/Nm ³ (10% O ₂)	mg/Nm ³ (10% O ₂)	mg/Nm ³ (10% O ₂)
17,0	93,8	245	185,8	3,8	39,6

Kedlen er i overensstemmelse med

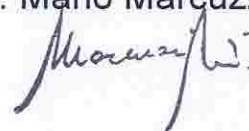
KLASSE 3

I punkt 4.2.6 I den europæiske standard EN 303-5:1999.

Resultaterne er angivet I prøvningsrapporten Nr. 0304-12NB dateret april 2012, som indgår I produktets tekniske dossier.

Cordenons, 23.04.2012

Leder af testlaboratoriet
dr. Mario Marcuzzi



Basis of testing

- EN 305-5:1999 Heating boiler for solid fuels, nominal heat output of up to 300kW
- Client's documents

The practical tests were performed in the laboratory in Cordenons (PN), via Amman, 41.

Sampling of the appliance

The sampling of the appliance was performed by the manufacturer and was received by the testing laboratory on.

Key data of appliance

		Nominal	Reduced
Water heat output	kW	17,0	3,8
Refuel period	min	360	360
Efficiency	%	93,8	88,5
CO to 10% O ₂	mg/Nm ³	245	354
CO ₂	%	9,2	5,9
O ₂	%	10,8	14,6
Flue gas mass flow	g/s	12,7	4,9
Fuel consumption hourly	kg/h	3,76	0,89
NO _x to 10% O ₂	mg/Nm ³	185,8	119,6
OGC to 10% O ₂	mg/Nm ³	3,8	8,9
Dust emission to 10% O ₂	mg/Nm ³	39,6	---
Flue gas temperature	°C	86,6	40,5
Minimum chimney draught	Pa	12,6	7,7
Maximum operative pressure	bar	3,0	3,0
Minimum combustible materials distance			
side	mm	50	50
back	mm	50	50

The results of the tests relate only to the tested appliance.
This test report shall not be reproduced except in full, without written approval of the laboratory.
The appliance was returned to the manufacturer after the end of tests.

PERFORMANCE AT THE NOMINAL HEAT OUTPUT TEST

Combustion:		
test period	<i>min</i>	360
fuel load	<i>kg/h</i>	3,76
average flue draught	<i>Pa</i>	13,2
Ventilation circuit:		
average ambient room temperature	<i>°C</i>	17,4
Flue gas:		
carbon dioxide	<i>CO₂ %</i>	9,2
oxygen	<i>O₂ %</i>	10,8
average flue gas temperature	<i>°C</i>	86,6
flue gas mass flow	<i>g/s</i>	12,7
Results:		
boiler efficiency	<i>%</i>	93,8
carbon monoxide [at 10% O ₂]	<i>%</i>	0,019
carbon monoxide [at 10% O ₂]	<i>mg/m³</i>	245
carbon monoxide [at 13% O ₂]	<i>%</i>	0,014
carbon monoxide [at 13% O ₂]	<i>mg/m³</i>	178
average boiler water output temperature	<i>°C</i>	74,1
average boiler water input temperature	<i>°C</i>	53,0
operating pressure	<i>bar</i>	1,4
water flow rate	<i>kg/h</i>	692
heat input	<i>kW</i>	18,1
heat output	<i>kW</i>	17,0
Dust emission (at 10% O ₂): test A	<i>mg/m³</i>	49,0
Dust emission (at 10% O ₂): test B	<i>mg/m³</i>	31,5
Dust emission (at 10% O ₂): test C	<i>mg/m³</i>	42,2
Dust emission (at 10% O ₂): test D	<i>mg/m³</i>	35,6
Dust emission (at 10% O ₂): average	<i>mg/m³</i>	39,6
NO _x	<i>ppm</i>	84,4
NO _x (at 10% O ₂)	<i>mg/m³</i>	185,8
THC (as propane)	<i>ppm</i>	1,9
OGC (as C at 10% O ₂)	<i>mg/m³</i>	3,8

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