

Technical Documentation for Domestic Range Hoods according to the Annex V(B1), Regulation 65/2014

Manufacturer:	Imtron GmbH Wankelstr. 5, 85049 Ingolstadt, Germany
Product name:	Cooker Hood
Brand:	ok.
Model:	OHO 630

1. EEI_{hood}

$$EEI_{hood} = \frac{AEC_{hood}}{SAEC_{hood}} \times 100$$

and is rounded to the first decimal place.

Where:

- $SAEC_{hood}$ = Standard Annual Energy consumption of the domestic range hood in kWh/a, rounded to the first decimal place,
- AEC_{hood} = Annual Energy Consumption of the domestic range hood in kWh/a, rounded to the first decimal place.

2. AEC_{hood}

(ii) for all other domestic range hoods:

$$AEC_{hood} = \frac{[W_{BEP} \times (t_H \times f) + W_L \times t_L]}{60 \times 1\,000} \times 365$$

Where:

- t_L is the average lighting time per day, in minutes ($t_L = 120$),
- t_H is the average running time per day for domestic range hoods, in minutes ($t_H = 60$),
- P_o is the electric power input in off mode of the domestic range hood, in Watt and rounded to the second decimal place,
- P_s is the electric power input in standby mode of the domestic range hood, in Watt and rounded to the second decimal place,
- f is the time increase factor, calculated and rounded to the first decimal place, as:

$$f = 2 - (FDE_{hood} \times 3,6)/100$$

3. SAEC_{hood}

The Standard Annual Energy Consumption (SAEC_{hood}) of a domestic range hood shall be calculated as:

$$SAEC_{hood} = 0,55 \times (W_{BEP} + W_L) + 15,3$$

Where:

- W_{BEP} is the electric power input of the domestic range hood at the best efficiency point, in Watt and rounded to the first decimal place,
- W_L is the nominal electric power input of the lighting system of the domestic range hood on the cooking surface, in Watt and rounded to the first decimal place.

4. FDE_{hood}

$$FDE_{hood} = \frac{Q_{BEP} \times P_{BEP}}{3\,600 \times W_{BEP}} \times 100$$

Where:

- Q_{BEP} is the flow rate of the domestic range hood at best efficiency point, expressed in m³/h and rounded to the first decimal place,
- P_{BEP} is the static pressure difference of the domestic range hood at best efficiency point, expressed in Pa and rounded to the nearest integer,
- W_{BEP} is the electric power input of the domestic range hood at the best efficiency point, expressed in Watt and rounded to the first decimal place.

$$FDE_{hood} = \frac{185,8 \times 92}{3600 \times 57,5} \times 100 = 8,3$$

$$f = 2 - (8,3 \times 3,6)/100 = 1,7$$

$$AEC_{hood} = \frac{57,5 \times (60 \times 1,7) + 56 \times 120}{60 \times 1000} \times 365 = 76,6$$

$$SAEC_{hood} = 0,55 \times (57,5 + 56) + 15,3 = 77,7$$

$$EEI_{hood} = \frac{76,6}{77,7} \times 100 = 98,6$$

5. LE_{hood}

$$LE_{hood} = \frac{E_{middle}}{W_L}$$

Where:

- E_{middle} is the average illumination of the lighting system on the cooking surface measured under standard conditions, in lux and rounded to the nearest integer,
- W_L is the nominal electric power input of the lighting system of the domestic range hood on the cooking surface, in Watt and rounded to the first decimal place.

$$LE_{hood} = \frac{64}{56} = 1,1$$

6. GFE_{hood}

$$GFE_{hood} = [w_g / (w_r + w_t + w_g)] \times 100 [\%]$$

Where:

- w_g = the mass of oil in the grease filter, including all detachable coverings, in g and rounded to the first decimal place,
- w_r = the mass of oil retained in the airways of the range hood, in g and rounded to the first decimal place,
- w_t = the mass of oil retained in the absolute filter, in g and rounded to the first decimal place.

$$GFE_{hood} = \frac{26,5}{5,7 + 2,1 + 26,5} \times 100 [\%] = 77,3$$

Energy Efficiency Index (EEl_{hood}) and Fluid Dynamic Efficiency (FDE_{hood}) for domestic range hoods

	EEl_{hood}	FDE_{hood}
From 1 year after the entry into force	$EEl_{hood} < 120$	$FDE_{hood} > 3$
From 3 years after the entry into force	$EEl_{hood} < 110$	$FDE_{hood} > 5$
From 5 years after the entry into force	$EEl_{hood} < 100$	$FDE_{hood} > 8$

Energy efficiency classes of domestic range hoods

Energy Efficiency Class	Energy Efficiency Index (EEl_{hood})			
	Label 1	Label 2	Label 3	Label 4
A+++ (most efficient)				$EEl_{hood} < 30$
A++			$EEl_{hood} < 37$	$30 \leq EEl_{hood} < 37$
A+		$EEl_{hood} < 45$	$37 \leq EEl_{hood} < 45$	$37 \leq EEl_{hood} < 45$
A	$EEl_{hood} < 55$	$45 \leq EEl_{hood} < 55$	$45 \leq EEl_{hood} < 55$	$45 \leq EEl_{hood} < 55$
B	$55 \leq EEl_{hood} < 70$	$55 \leq EEl_{hood} < 70$	$55 \leq EEl_{hood} < 70$	$55 \leq EEl_{hood} < 70$
C	$70 \leq EEl_{hood} < 85$	$70 \leq EEl_{hood} < 85$	$70 \leq EEl_{hood} < 85$	$70 \leq EEl_{hood} < 85$
D	$85 \leq EEl_{hood} < 100$	$85 \leq EEl_{hood} < 100$	$85 \leq EEl_{hood} < 100$	$EEl_{hood} \geq 85$
E	$100 \leq EEl_{hood} < 110$	$100 \leq EEl_{hood} < 110$	$EEl_{hood} \geq 100$	
F	$110 \leq EEl_{hood} < 120$	$EEl_{hood} \geq 110$		
G (least efficient)	$EEl_{hood} \geq 120$			

Fluid Dynamic Efficiency classes for domestic range hoods

Fluid Dynamic Efficiency Class	Fluid Dynamic Efficiency (FDE_{hood})
A (most efficient)	$FDE_{hood} > 28$
B	$23 < FDE_{hood} \leq 28$
C	$18 < FDE_{hood} \leq 23$
D	$13 < FDE_{hood} \leq 18$
E	$8 < FDE_{hood} \leq 13$
F	$4 < FDE_{hood} \leq 8$
G (least efficient)	$FDE_{hood} \leq 4$

Lighting Efficiency classes for domestic range hoods

Lighting Efficiency Class	Lighting Efficiency (LE_{hood})
A (most efficient)	$LE_{hood} > 28$
B	$20 < LE_{hood} \leq 28$
C	$16 < LE_{hood} \leq 20$
D	$12 < LE_{hood} \leq 16$
E	$8 < LE_{hood} \leq 12$
F	$4 < LE_{hood} \leq 8$
G (least efficient)	$LE_{hood} \leq 4$

Grease Filtering Efficiency (GFE_{hood}) classes for domestic range hoods

Grease Filtering Efficiency Class	Grease Filtering Efficiency (%)
A (most efficient)	$GFE_{hood} > 95$
B	$85 < GFE_{hood} \leq 95$
C	$75 < GFE_{hood} \leq 85$
D	$65 < GFE_{hood} \leq 75$
E	$55 < GFE_{hood} \leq 65$
F	$45 < GFE_{hood} \leq 55$
G (least efficient)	$GFE_{hood} \leq 45$

Product information requirements for domestic range hoods according to the Annex I, Regulation (EU) 66/2014

Manufacturer:	Imtron GmbH Wankelstr. 5, 85049 Ingolstadt, Germany
Brand:	ok.

Annex I (2a)

The requirements of Commission Regulation (EU) No 66/2014, using measurement methods compatible with the EN 61591:1997+A1:2006+A2:2011+A11:2014

Annex I (2b)

Information relevant to users in order to reduce total environmental impact (e.g. energy use) of the cooking process:

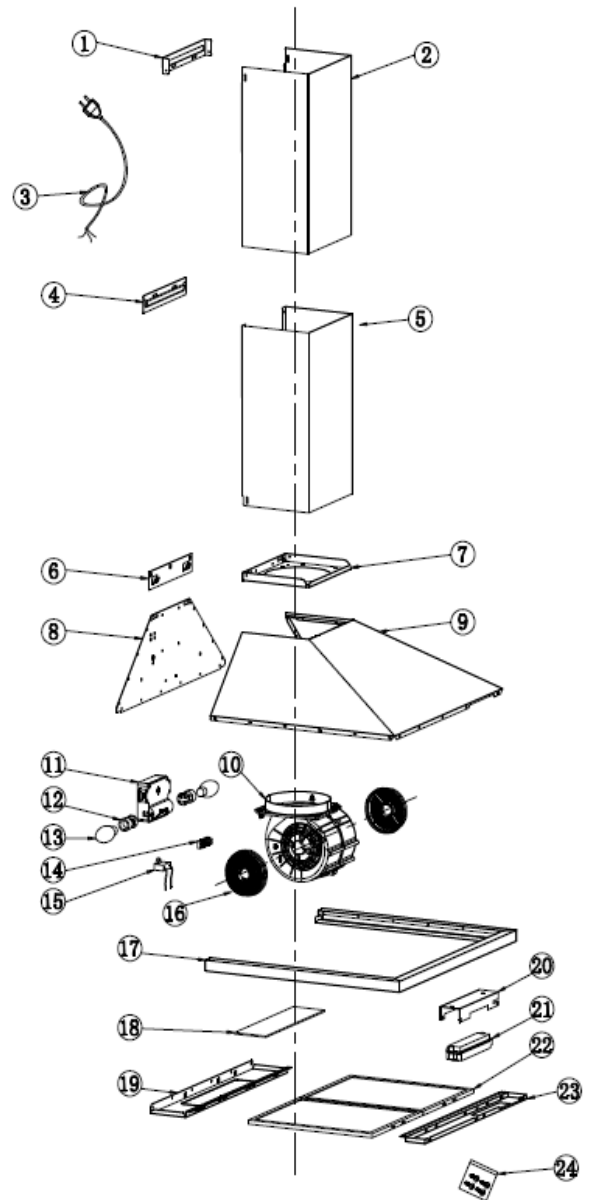
- Switch off the product when it is not necessary
- Install the product correctly according to the instruction manual
- Replace the charcoal filter regularly according to the instruction manual

Annex I (2b)

Information relevant for non-destructive disassembly for maintenance purposes and information relevant for dismantling, in particular in relation to the motor, if applicable, and any batteries, recycling, recovery and disposal at end-of-life.

- Spare Parts List
- Exploded View

Nr.	NAME	MATERIAL
1	inner chimney bracket	Galvanized sheet
2	inner chimney	SS
3	Plug	Combination
4	outer chimney bracket	Galvanized sheet
5	outer chimney	SS
6	Hook	Galvanized sheet
7	Junction board	Galvanized sheet
8	back panel	Galvanized sheet
9	Housing	SS
10	Motor	Combination
11	Junction box	PP
12	Lamp holder	Combination
13	Normal lamp	combination 2*40W
14	Junction pillar	combination
15	capacitance	combination
16	Charcoal filter	combination
17	Switch panel	ss
18	lamp glass	glass
19	lamp panel	ss
20	switch bracket	Galvanized sheet
21	slider switch	combination
22	Al filter	combination
23	front panel	ss
24	Fitting kit	Combination



Annex I (2.3), Table 6

Information for domestic range hoods

	Symbol	Value	Unit
Model identification		OHO 630	
Annual Energy Consumption	AEC_{hood}	76,6	kWh/a
Time increase factor	f	1,7	
Fluid Dynamic Efficiency	FDE_{hood}	8,3	
Energy Efficiency Index	EEl_{hood}	Class D	
Measured air flow rate at best efficiency point	Q_{BEP}	185,8	m^3/h
Maximum air pressure at best efficiency point	P_{BEP}	92	Pa
Maximum air flow	Q_{max}	329,3	m^3/h
Measured electric power input at best efficiency point	W_{BEP}	57,5	W
Nominal power of the lighting system	W_L	56	W
Average illumination of the lighting system on the cooking surface	E_{middle}	64	lux
Measured power consumption in standby mode	P_s	-	W
Measured power consumption off mode	P_o	0,03	W
Sound power level	L_{WA}	65	dB

**Product fiche requirements for domestic range hoods
according to the Annex IV (B1), Regulation (EU) 65/2014**

Manufacturer:	Imtron GmbH Wankelstr. 5, 85049 Ingolstadt, Germany
Product name:	Cooker Hood
Brand:	ok.
Model:	OHO 630

	Symbol	Value	Unit
Model identification		OHO 630	
Annual Energy Consumption	AEC_{hood}	76,6	kWh/a
Energy Efficiency class		Class D	
Fluid Dynamic Efficiency	FDE_{hood}	8,3	
Fluid Dynamic Efficiency class		Class E	
Lighting Efficiency	LE_{hood}	1,1	
Lighting Efficiency class		Class G	
Grease Filtering Efficiency	GFE_{hood}	77,3	
Grease Filtering Efficiency class		Class C	
Air flow	Q_{max}	329,3	m ³ /h
Air flow at working point (highest voltage)		315,0	m ³ /h
Air flow at working point (lowest voltage)		222,6	m ³ /h
Airborne acoustical A-weighted sound power emissions at maximum speed	L_{WA}	65	dB
Airborne acoustical A-weighted sound power emissions at minimum speed	L_{WA}	62	dB
power consumption in off mode	P_o	0,03	W
power consumption in standby mode	P_s	-	W