Voluntary agreement regarding the use of Energy Labels for espresso machines.

Background:
The members of CECED acknowledge the desire that has been repeatedly expressed in public for a classification of coffee machines according to their energy efficiency and the importance of the data that is published on the Energy Labels (EE). They consider it to be very important that the consumers can trust the information in these documents. For this reason, CECED members will carry out all necessary tests that will provide data corresponding to the standards drawn up by CECED and will make every effort to ensure the correctness of the data specifications. The members subject themselves to the procedural fundamentals agreed in this agreement.

Up to today, there have been energy labels for different categories of household appliances, such as refrigerators, washing machines, dishwashers or lamps. The primary information on the label concerns the energy efficiency of the appliance, they are shown in the upper part of the label. Other features that are often associated with the efficiency and that are also of major importance for the choice of the appliance are shown in the second part of the label. This part is designed differently for the various appliance categories, quite different information can be required, such as cleansing effect or light power.

Starting point has been to create an objective yardstick for all types of espressomachines that will reward energy efficiency of the appliance in balance with the rate of fulfilment of the core consumer needs by comparing energy use against a fixed benchmark for each function offered in the product. Benchmark values for energy use per function are based on Best Available Technologies (BAT) and may be updated periodically.
The performance per function will be weighted in the total score based on the relative energy consumption of this function.
The actual consumption in relation to normal use is definitive for the assignment to the energy efficiency classifications.

Definitions:
The following specific definitions are specific to the implementation of this agreement:
Member: Company belonging to the CECED organisation that manufactures or distributes coffee machines.
Market participant that are not part of CECED can accept this agreement with their signature.
Data: Values and information about the product that are noted on the EE.
Third party: Third party that neither manufactures or distributes coffee machines.
Appliance: Product that is sold under a company brand for which there is an EE.

Zurich, 22nd May 2009

Attachments

Appendix 1: Contract FEA / BFE 28th of May 2009
Appendix 2: Measuring standard 11th of Mai 2009
Appendix 3: Specification cups
Appendix 4: Criteria assessment tool
Appendix 5: Measuring form
Appendix 6: Layout targets
Appendix 7: Provisions
Appendixg 8: Verification process
Appendix 9: Please note

Anhang 1

Vereinbarung zwischen dem
FACHVERBAND ELEKTROAPPARATE FÜR HAUSHALT UND GEWERBE SCHWEIZ FEA
und dem
Bundesamt für Energie BFE
über die Anwendung einer
energieEtikette für Kaffeemaschinen

1. Der FEA, anerkennt den hohen Stellenwert einer ganzheitlichen Ausrichtung des wirtschaftlichen Handelns nach Umweltkriterien. Die schweizerische Elektro-Hausgerätebranche ist daher gewillt, im Energie- und Umweltbereich den Tatbeweis anzutreten und ihre Leistungsfähigkeit unter marktwirtschaftlichen Bedingungen und unter Beachtung des europäischen Umfeldes zu dokumentieren.
2. Der FEA verpflichtet sich für die im Verband organisierten Anbieter von Kaffeemaschinen – in Übereinstimmung mit der in der FEA-ÖKO-CHARTA festgelegten Ziele – die in Zusammenarbeit mit dem BFE und von Exponenten der betroffenen Industrie erarbeiteten Grundlagen für eine Etikettierung von Kaffeemaschinen anzuwenden.

   2.1 Geltungsbereich

   2.1.1. Kaffeemaschinen (Espressomaschinen, mit und ohne Pumpe, Espressomaschinen für Kapseln und Portionen Espresso-Vollautomaten) unterliegen dem vom Produktebereich Kleingeräte am 27. Februar 2008 beschlossenen und vom Vorstand am 26. März 2008 bestätigten Prüfverfahren.

   2.1.2 Keinem energietechnischen unterliegen: Filterkaffeemaschinen

   2.1.3 Die Angabe des Energieverbrauchs und die Kennzeichnung erfolgen gemäss der vom BFE und FEA erarbeiteten Messrezeptur und der darauf basierenden Energieetikettierung für Kaffeemaschinen.

   2.2 Wer Kaffeemaschinen in Verkehr bringt, muss dafür sorgen, dass die Energieetikette an den Ausstellungsexemplaren der genannten Geräte und in den Verkaufsunterlagen (Prospekt, Bedienungsanleitung usw.) erscheint.

   2.3 Energietechnisches Prüfverfahren

   Der Energieverbrauch und weitere Eigenschaften der in Ziffer 1 genannten Geräte werden entsprechend der europäischen Norm EN 14511 gemessen.

   2.4 Übergangsregelung

   Die Deklaration soll ab dem 1.1.2009 eingeführt werden können. Sie soll ab dem 1.7.2009 verbindlich sein.

   Es ist beabsichtigt, dass die Etikette möglichst breit zum Einsatz kommt und der Einbezug von weiteren Anbietern und dem Handel angestrebt wird.
3. BFE und FEA sind überzeugt, damit eine wichtige Verkaufshilfe bereit zu stellen und somit einen wesentlichen Beitrag für einen effizienten Energieeinsatz zu leisten.

Zürich, 28.05.2008	Bern, 28.05.2008
FEA Fachverband Elektroapparate für Haushalt und Gewerbe Schweiz	**Bundesamt für Energie BFE**
Dr. B. Weibel, Präsident	Dr. R. Bolliger, Geschäftsführer
	Dr. W. Steinmann, Direktor
	M. Kaufmann, Vizedirektor

Beilage 1

Ergänzung zur

Vereinbarung zwischen dem
FACHVERBAND ELEKTROAPPARATE FÜR HAUSHALT UND GEWERBE SCHWEIZ FEA
und dem
Bundesamt für Energie BFE
über die Anwendung einer
energieEtikette für Kaffeemaschinen

1. Nachdem die in der Vereinbarung vom 28. Mai 2008 vom FEA vorbereitete "freiwillige Vereinbarung" punkto Inhalt und Umsetzung mit dem europäischen Fachverband der Haushaltapparatebranche (CECED) als übergeordneten Standard für die Etikettierung von Kaffeemaschinen adaptiert wurde, ist sie punkto des verbindlichen Messestandards und der Fristen zur Umsetzung anzupassen:
2. Ziffer 2 der entsprechenden Vereinbarung wird wie folgt ergänzt:

   2.1 Geltungsbereich

   2.1.1. Kaffeemaschinen (Espressomaschinen, ... bestätigten Prüfverfahren.

   Dieses wurde nach dem Abschluss der Arbeiten des europäischen Verbands der Hersteller von Haushaltapparaten CECED als Messstandard vom 11. Mai 2009 von dem Im Kleingerätebereich des FEA organisierten Firmen am 19. Mai 2009 verabschiedet und vom Vorstand des FEA am 30. Juni 2009 validiert.

   ...

   2.4 Übergangsregelung

   Die Deklaration wird ab dem August 2009 freiwillig eingeführt. Eine verpflichtende Regelung wird nicht vorgesehen, bevor ein international verbindlicher Standard definiert oder eine entsprechende EU-Direktive erlassen ist.

   ...

Zürich,	Bern,
FEA Fachverband Elektroapparate	**Bundesamt für Energie BFE**
für Haushalt und Gewerbe Schweiz	
Dr. R. Bolliger	M. Kaufmann
Geschäftsführer	Vizedirektor

Appendix 2

Measurement method for the determination of the energy consumption of Espresso machines

1. Area of validity

This measurement method can be used for all manual and automatic espresso and multipurpose hot beverage machines characterized by the fact that they are based on high pressure (> 5 bar maximum working pressure) espresso technology and on a cup by cup system. Professional coffee machines with a water connection are outside the scope.

2. Definitions

The following definitions are in line with the Implementing directive 2005/32/EC of the European Parliament and of the council with regard to ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment and have been repeated here for reference only.

"Standby mode" means a condition where the equipment is connected to the mains power source, depends on energy input from the mains power source to work as intended and provides only the following functions, which may persist for an indefinite time:

- *reactivation function, or reactivation function and only an indication of enabled reactivation function, and/or*
- *information or status display.*

"reactivation function" means a function facilitating the activation of other modes, including ready to use mode, e.g. by remote switch including remote control, internal sensor, timer to a condition providing additional functions, including the main function;

"information or status display" means a continuous function providing information or indicating the status of the equipment on a display, including clocks;

"Active mode" means a condition in which the equipment is connected to the mains power source and at least one of the main functions providing the intended service op the equipment has been activated.

"Off mode" means a condition in which the equipment is connected to the mains power source and is not providing any function; the following shall also be considered as off mode:

a) *conditions providing only an indication of off mode condition,*
b) *conditions providing only functionalities intended to ensure electromagnetic compatibility pursuant to Directive 2004/108/EC of the European Parliament and of the Council.*

In line with the implementing measure we define:

"Ready to use mode" means a condition in which the equipment is connected to the mains power source and the main function(s) providing the intended service of the equipment can be activated within maximum 3 seconds.

3. General conditions (in line with IEC 60661:2006 and IEC 62301:2005)

a) Place the appliance in operation according to the Operating Manual provided with the machine.
b) Fill the water tank and the coffee bean container (if available)
c) With manual machines, set up the piston (7±0,1gr of coffee powder per cup as specified in 4.2) or fill the filterholder.
d) The measurement should take place at a room temperature of 23 ±2°C. The test sample will be stored at room temperature for 12 hours before the measurement. (Storage temperature according to EN 60335, Part 1, see also EN60661) (Exception: Water temperature for steaming at 15 ±2 °C; it may be handy to prepare an extra water container with water at the right temperature for refilling during the test).
e) Input: nominal voltage ±1%
f) Frequency: nominal ± 1%
g)Test room: substantially draught-free
h) During the test the ambient temperature shall be kep at constant level, with admissible deviations ±2°C

4. Determination of the energy consumptions in Wh

4.1. Energy consumption of the appliance from cold to "ready to use"

Condition	*Preparations according to Point 3.* *Separately switched heating systems, such as heated cup trays, are to be switched in factory default position*
Procedure	*The appliance is switched on and the power consumption is measured until 60±1 seconds after the „Ready to use" mode has been reached (and after the rinsing process has been completed).*
Remarks	

4.2. Energy consumption while serving the coffee

Condition	*Preparations according to Point 3.* *The coffeemachine must be in "ready to use" mode. Separately switched heating systems such as heated cup trays are to be switched in default factory position.* *Setting for the coffee grinder: Basic setting from the factory* *Coffee beans used: Illy (as in STIWA test). Ground coffee: Illy (please note: in Switzerland this coffee is called: Amici). Capsules/pods: manufacturer must choose a type that is most commonly used and specify this in the measurements. Thin wall plastic beakers with negligible heat capacity are used as cups (see specification sheet in annex 1).* *Water temperature in the reservoir should be 23 ±1°C* *The coffee temperature in the middle of the plastic beaker as measured within 5 seconds after serving and after stirring with a stirring rod of negligible heat capacity or with the measuring device. Please note that measurement with a glass thermometer is inaccurate due to its heat capacity.* *Brewing cycles:* 1 single coffee of 40 gr 1 single coffee of 120 gr

	1 double coffees 40gr 1 double coffees of 120 gr *Weights are approximations. Real value must be recorded.* *In case the machine can only make single coffees the "doubles"are replaced by 2 singles of the same weight to be made immediately after each other. This means that in total 6 singles will be made in that case.* *If the machine has a very short ready to use period and switches within 10 minutes to standby, we will include the re-heating to ready to use as brewing energy. See below.*
Procedure	*The first brewing cycle starts 60±2 seconds after "ready to use" mode has been reached after the heating up cycle (4.1). The energy consumption is measured each time from the start (pressing the Serve button) until 60±1seconds after the "ready to use" mode has been reached again, indicating that the appliance is ready to serve the next coffee. If after this 60 seconds the first heating cycle since the brewing is still in progress, the energy measurement will continue untill the first heating cycle has finished.* *First a single serve of 40 g is made.* *After that a single serve of 120 g is made.* *Of both servings the coffee temperature is measured in the middle of the plastic beaker within 5 seconds after brewing and after stirring with a stirring rod of negligible heat capacity.* *After 60 minutes of ready to use time a double serving will be made of 2x40g and a double serving of 2x120g will be made . If the machine has a very short ready to use period and switches within 10 minutes to standby, we will include the re-heating to ready to use as brewing energy for the double servings and we will include an extra waiting time of 60±2minutes before making the double long coffee. (see also 4.4)* *The weight of all the individual servings must be recorded and will be calculated automatically to an average weight in the measuring form.* *The total energy use of all 4 brewing cycles (2 singles and 2 doubles) will be calculated by adding them up (see measuring form)*
Remarks	*In case refilling with water or emptying the coffee fines is necessary this should happen in the 60 minutes waiting period, Use water with temperature of 23±1°C .* *In case the machine allows for adjusting the weight per cup, we will choose as close as possible to the 40 and 120 g.* .

4.3. Energy consumption during steam supply

Condition	*Preparations according to Point 3.* *Water temperature at the start in the beaker is 15 ±2°C ;* *Separately switched heating systems such as heated cup trays are to be switched in factory default position.*
Procedure	*The steam function will be started each time one minute after completing a brewing cycle.* *The energy is measured from the moment the steam function has been activated by preselection of steaming (if available) or opening the steamvalve or simply push the steam button until the moment the required water temperature has been reached in the beaker.* *3 deliveries of steam will be measured with each time a brewing cycle in between. The average energy consumption in Wh is then determined.* *The steam delivery:* *In many cases the operating manual will instruct the user to let the steam/water from the first specified number of seconds escape. This instruction must be followed. This means that the beaker will in that case be put under the steam tube only after this specified time period.* *100±1 g water is heated up from 15 °C to 55±2 °C in the same thin wall low heat capacity plastic beaker as used for brewing.(see annex 1)* *The temperature measurement takes place in the centre of the beaker during the steaming process to determine when to stop. Immediately after that the final temperature is measured by quickly stirring and measuring in the centre of the beaker.* *In the case of an "autocappuccinatore",when it is possible the same procedure as above is followed. The air inlet at the venturi tube must be closed.* *In case no steam tube exists, use the following procedure:* *Milk reservoir full with water of 15°C.* *Start the process and let it continue until 110±1 g in the beaker. The 10g extra compensates for the condensed steam amount.*
Remarks	

4.4. Energy consumption while ready to use

Condition	*Preparations according to Point 3.* *Separately switched heating systems such as heated cup trays are to be switched in default factory position.*
Procedure	*Start of the measurement at least 1 minute after " ready to use" mode has been reached after serving a coffee.* *The energy consumption is measured over 60 minutes.* *Ensure that the system remains in ready to use mode (e.g. by manual reactivation)*
Remarks	*The measuring instrument must be capable of measuring the simultaneous power consumption of the electronics and the short-term peaks of the heating with sufficient accuracy. See also§5.* *In case the ready to use mode exists only for a period too short to measure due to switching to standby by the power management system (less than 10*

	minutes), one can argue that the machine does not have a practical ready to use mode. In that case the ready to use energy value will be equal to the standby value. However the energy needed to heat up to the ready to use level will be added to the brew cycle energy by starting those measurements from switching to ready to use mode each time we start a brewing cycle. See §4.2 for details.

4.5. Energy consumption in Standby mode

Condition	*Preparations according to Point 3.* *Separately switched heating systems such as heated cup trays are to be switched in factory default position*
Procedure	*After serving coffee (incl. final rinsing) the device is switched to the Stand-by mode.* *The energy consumption in the Standby mode is measured in accordance with EN62301 and leads to a value per hour*
Remarks	*In case a machine does not have a powermanagement system including automatically switching to standby or off , the ready to use mode value will be used as standby value.* *If the machine has a power management system that switches the machine to "off" mode, this energy value will be taken as standby energy.*

4.6. Energy consumption during heating after Standby/off mode

Condition	*Separately switched heating systems such as heated cup trays are to be switched in factory default position.*
Procedure	*This measurement must start 120±5 minutes after ending the ready to use mode to allow for sufficient cooling down of the system.* *The power consumption is measured until 60±1 seconds after the appearance of the „Ready to use"mode.*
Remarks	*If a machine has a power management system that switches the machine to "off", this measurement will start from the off mode.*

4.7. Energy consumption in Off mode

Condition	*Preparations according to Point 3.* *Separately switched heating systems such as heated cup trays are to be switched in factory default position*
Procedure	*The energy consumption in the Off mode is measured in accordance with EN62301 and leads to a value per hour.*
Remarks	*If the machine does not have an "off"mode, the standby value will be taken for this.*

5. Power measurement accuracy (in line with IEC 62301)

Measurement of power of 0,5 W and greater shall be made with an uncertainty of less than or equal to 2% at the 95 % confidence level. Measurements of power of less than 0,5W shall be made with an uncertainty of less than or equal to 0,01 W at the 95% confidence level. The power measurement instrument shall have a resolution of:

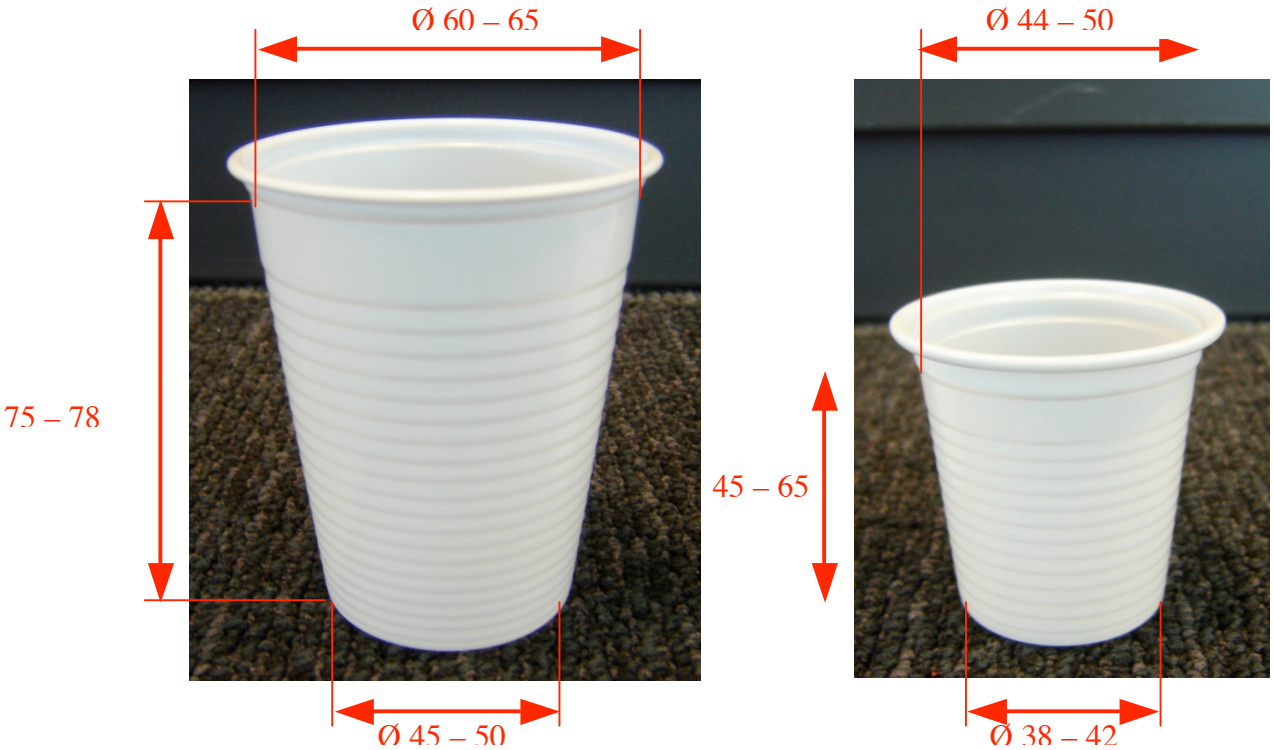
- *0,01 W or better for power measurements of 10 W or less*
- *0,1 W or better for power measurements of greater than 10 W up to 100 W*
- *1 W or better for power measurements of greater than 100 W*

For appliances connected to more than one phase, the power measurement instrument shall be equipped to measure total power of all phases connected.

Appendix 3: Specification cups
Objective: Standardize coffee cups for 120 cc coffee and 40cc espresso in order to minimize the influence of used cup on energy measurement for coffee appliances

Main factor of influence is the in-cup temperature measurement. The critical parameters influencing the in-cup temperature are the cup geometry, the cup mass and the cup material.

Cup geometry:



Cup mass:

Regular 120 cc cup

Espresso 40 cc cup

Regular 120 cc cup 2,5 – 4,0 gram,

Espresso 40 cc cup 1,5 – 2,5 gram

Cup material:

Polystyrene >PS<
Note: Width on top measured just below collar, on bottom just above radius, height at same points

Appendix 4: Criteria assessment tool

The Excel tool to calculate the overall performance of the machine based on a comparison with the decided benchmark.

The benchmark has been made dependent on a number of calibration inputs to maintain a fair comparison.

Original Excel file to be used in practice! Only white cells to be filled in!

Criteria assessment tool energy label Espresso machines Version: 11 May 2009

Declaration for energy use of Coffee Machines

Machine brand: | Date:

Type number: | Prepared by:

Results reflect energy consumption in Wh over 24 hr use. | Signature:

Ref	Task	Procedure	Weight based on use frequency	Benchmark for function [Wh]	Calculated std consumption [Wh]	Function available? (yes=1; no=0)	Benchmark result based on calibration	Measured result for function	Calculated real consumption [Wh]	Relative performance per item
4.1	Heating up from "off"	One time heating up	1	20	20		20		0	0%
4.2	Brewing coffee	Sum of 1xsingle and 1x doubles 40g and same for 120g.	1	55,8	55,8		55,8		0	0%
4.3	Steaming	Avrg of 3 measurements	1	15	15	1	15		0	0%
4.4	Ready to use time	60 min measurement	5	15	75		75		0	0%
4.5	Standby time	According to IEC 62301	11	2	22		22		0	0%
4.6	Heating up after standby	One time heating up	2	16	32		32		0	0%
4.7	"off" mode time	According to IEC 62301	8	1	8		8		0	0%
	Corrections									
	(Automatic) rinsing	Measured as part of heating up	1	3	3	1	3		0	
	Grinding	Minor impact, no measurement	1	2	2	1	2		0	
		Total consumption					233		0	0%

Calibration inputs:

Tcoffee =	76	°C
Avrg Cup=	80	g
Twater,brew	23	°C
DeltaTsteam	40	K

Tolerances shall not exceed limits as given in the implementing directive 2005/32/EC on standby energy
Tolerances shall not exceed 10% in case not covered by this directive.
Tolerances include testlab inaccuracy and production tolerances

The following formulas are used in the spreadsheet:

The benchmark energy for brewing ($E_{std\text{-}brew}$) will be corrected in case the coffee temperature is below 76°C as follows:

$$E_{std\text{-}new} = E_{std\text{-}brew} * (T_{act} - T_{water}) / (76 - 23)$$

whereby T_{act} =average measured coffee temperature of the 2 first serves: ((T1+T2)/2) and T_{water}= temperature of water in water reservoir at the start of the session.
In this way a lower coffee temperature in itself will never lead to a better rating.

The weight of the brews is used to calibrate the benchmark value for energy consumption as follows:

$$E_{std\text{-}new} = E_{std\text{-}brew} * M_{measured} / M_{standard}$$

In this way cup size variation will not lead to a better or worse energy rating

In the steaming function the actual temperature reached in the cup may differ from the 55°C, we will compensate for that using the formula:

$$E_{std\ new} = E_{std\ steaming} * (T_{act} - T_{ws}) / (55 - 15)$$

T_{act} = measured water temperature at end of steaming cycle
T_{ws}=start temperature of water
Delta T steam= T_{act}- T_{ws}

Appendix 5

Measuring form
Original Excel file to be used in practice!

Measuring form for espresso machines energy label

Machine brand			
Type			
Name of test engineer			
Date of testing			
Rated voltage		V	
T ambient		°C	
T machine		°C	
Twater in reservoir		°C	
Input voltage		V	
Default settings of switches:			
Shut off time	time		s Enter n.a. in case no power management system available
Cup heater	on/off		
...			
...			
...			

Measurement equipment used:

Measurement 4.1	heat up from cold		
Energy used			Wh - include first 60 seconds after ready to use!
Rinsing? (yes/no)			

Measurement 4.2	brewing		
Coffee type used			
Grinding function? (yes/no)			
Energy used first 40 g brew			Wh - Include first 60 seconds after ready to use*)
Temp in cup			°C
Weight total			g
Weight of cup			g
Weight of coffee		0	g

*) in case the system after 60 s has not yet recuperated and is still heating up in its first heating cycle since the brewing, add the energy used in the heating cycle in progress. This also holds for the other brew cycles.

Coffee type used			
Energy used first 120g brew			Wh - Include first 60 seconds after ready to use
Temp in cup			°C
Weight total			g
Weight of cup			g
Weight of coffee		0	g

.....Wait 60 minutes to let the system return to steady state ready to use temperatures.....
In case the shut off time of the PMS is shorter than 10 minutes, let it cool down for 60 minutes
and in that case include in the next brew cycles the re-heating energy in the brew cycle measurements.

Measurement 4.2 continued

Energy used double 40 g brew			Wh - Include first 60 seconds after ready to use		
Temp in cup			°C		
Weight total			g		
Weight of cup			g		
Weight of coffee	0	0	g	Sum:	0 g

In case the shut off time of the PMS is shorter than 10 minutes, let it cool down again for 60 minutes

Measurement 4.2 continued

Energy used dble 120 g brew			Wh - Include first 60 seconds after ready to use		
Temp in cup			°C		
Weight total			g		
Weight of cup			g		
Weight of coffee	0	0	g	Sum:	0 g

Summary brew function 4.2

	Single 40	Single120	Double40	Double120	Average	
Temperature of servings	0	0			0	°C
Weight of servings	0	0	0	0	0	g
Energy used	0	0	0	0	0	Wh

Measurement 4.3 Steaming function First time

Weight of water (target=100g)		g
T water in beaker		°C
Weight after steaming		g
T water after steaming		°C
Energy used		Wh
Presteaming time used		s

.....Brew a coffee in between.....

Measurement 4.3 Steaming function Second time

Weight of water (target=100g)		g
T water in beaker		°C
Weight after steaming		g
T water after steaming		°C
Energy used		Wh
Presteaming time used		s

.....Brew a coffee in between.....

Measurement 4.3 Steaming function Third time

Weight of water (target=100g)		g
T water in beaker		°C
Weight after steaming		g
T water after steaming		°C
Energy used		Wh
Presteaming time used		s

Summary steam function

	Msrmt 1	Msrmt 2	Msrmt 3	Average
Weight of water (target=100g)	0	0	0	0
T water in beaker	0	0	0	0
Weight after steaming	0	0	0	0
T water after steaming	0	0	0	0
Energy used	0	0	0	0

Delta T steam: 0

Measurement 4.4 Ready to use energy
Energy use 60 minutes ____ Wh
In case shut off time < 10 minutes, use standby value.

Measurement 4.5 Standby energy
Energy use 60 minutes ____ Wh
Power management system? ____ 1=Yes/0=No
If "No" than standby energy is: 0 Wh
Explanation:A power management system switches the machine automatically to standby or off mode.

.....Wait 120 minutes to let the system cool down sufficiently.....

Measurement 4.6 Heating up from standby
Energy use ____ Wh
Skip in case no power management system exists.
In case "standby" equals "off" start from "off"
include first 60 seconds after ready to use!

Measurement 4.7 Off energy use
Energy use 60 minutes ____ Wh
Take standby value in case no "off" mode exists

All measurements done in compliance with CECED measuring procedure version 7.2 dated 20090511:
Measurement method for the determination of the energy consumption of Espresso machines

Signature test engineer: ____

Scale: There is **no better than A** declaration

	<28.8, 28.8	
43.2	>28.8-43.2	-40%
57.6	>43.2-57.6	-20%
72	>57.6-72	A
90	>72-90	B
112	>90-112	C
140	>112-140	D
175	>140-175	E
219	>175-219	F
>219	>219	G

Appendix 6

Layout targets

The standard includes an open scale (A-20%, A-40%).
Currently the scale A to G is used (figure A); following the European targets it is allowed to declare A-20 % (figure B).

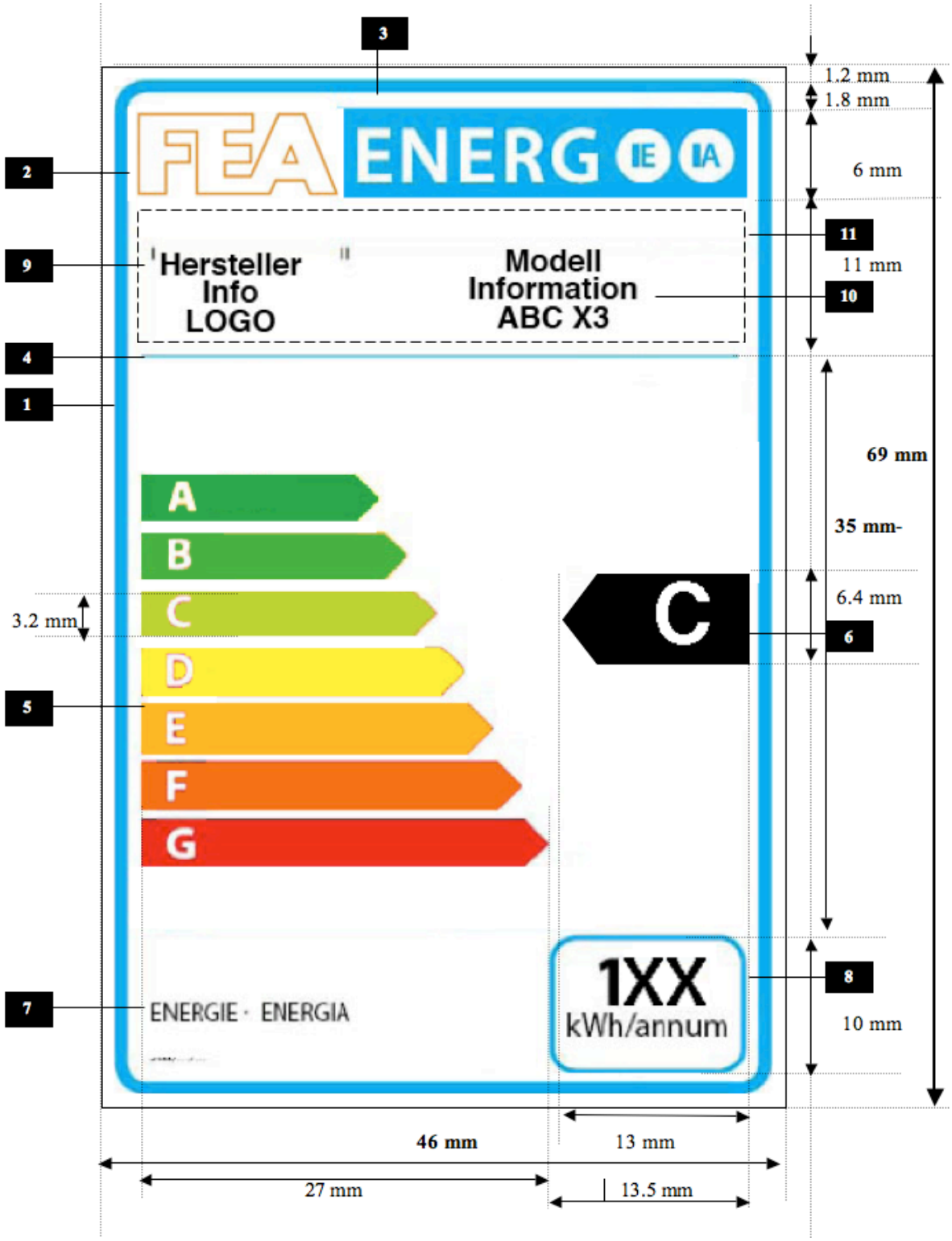


Figure A

The label for coffee machines has to fulfill the following scheme:

(i) The label shall be at least 46 mm wide and 69 mm high. Where the label is printed in a larger format, its content shall nevertheless remain proportionate to the specifications above.

(ii) The background shall be white.

(iii) Colours shall be CMYK — cyan, magenta, yellow and black, following this example: 00-70-X-00: 0 % cyan, 70 % magenta, 100 % yellow, 0 % black.

(iv) The label shall fulfil all of the following requirements (numbers refer to the figure above

1 **FEA Label border stroke**: 3 pt – colour: Cyan 100% – round corners: 1.7 mm.

2 **FEA logo** – colour: 00-70-X-00.

3 **Energ /ie /ia Feld:** colour: X-00-00-00.
(Pictogram as supplied):
FEA-Logo + Energ /ie /ia label: width: 40 mm, height: 7 mm.

4 **Sub-logos border**: 0.5 pt – colour: Cyan 100% – length : 40 mm.

5 **A-G scale**
Arrow: height: 7 mm, gap: 0.75 mm – colours:
Highest class: X-00-X-00,
Second class: 70-00-X-00,
Third class: 30-00-X-00,
Fourth class: 00-00-X-00,
Fifth class: 00-30-X-00,
Sixth class: 00-70-X-00,
Last class(es): 00-X-X-00.
Text: Myriad Pro bold 12, capitals, white.

6 **Energy efficiency class**
Arrow: width: 13 mm, height: 6.4 mm, 100% black;
Text: Myriad Pro Bold 14 pt, capitals, white.

7 **Energ /ie /ia** Text: Myriad Pro Regular 6 pt, capitals, black.

8 **Annual energy consumption:**
Border: 1.5 pt – colour: Cyan 100% – round corners: 1.6 mm.
Value: Myriad Pro bold 14 pt, 100% black.
Second line: Myriad Pro regular 6 pt, 100% black.

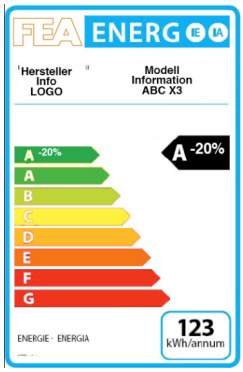
9 **Manufacturer's information LOGO**

10 **Model's-information**

11 The manufacturer and model information should fit in a space of 40 x 11 mm

Recommended paper: Taktik Offset Vinyl white matt, 135 g

Figur B



The arrow of „A-20%“ is shortened linearly; The scale of colours moves to the best; F and G have the same colour 0-XX-XX-0.
The arrows are to be placed into the space of 35 mm.

Distribution of the label

The suppliers are responsible for the production and distribution of the labels including the needed instruction to the point of sale.
It is foreseen to start with the labelling in august / september 2009.

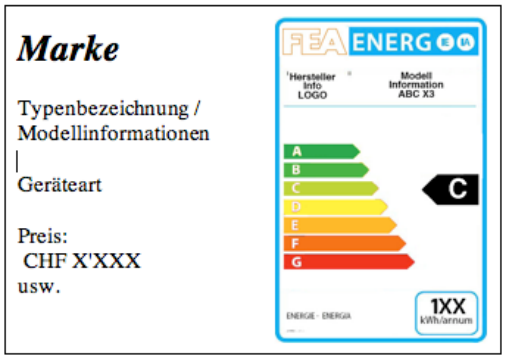
How to place the label:

The Energylabel has to be placed on appliances which are intended for exhibitions or demonstrations. The point of sale bear the label provided by suppliers in accordance with EN 92/75 on the outside of the front or top of the appliance, in such a way as to be clearly visible. (recommended paper: Taktik Offset Vinyl white matt, 135 g, s.o.).

Variant:

In exhibitions the label-information can be given on a separat ***table display***, if it is combined with other relevant information abaout the appliance. The label has to have the same dimensions; relevant information is the brand, the type, („Automat“, „Capsule-system“ and so on), the price.

Example:



The table display has to be placed as closed to the appliance that ist can be seen and assigned correctly, avoiding any confusion.

Appendix 7

Provisions:

1. The undersigned company hereby acknowledges the decision of the FEA to declare the energy efficiency of coffee machines in accordance with the measurement recipes drawn up by the Association (Appendix 2) and the assessment principles (Appendix 2) .

2. The EE for coffee machines is based on the structure of the energy labels that are commonly used in the European area and that are defined in the Federal legislation insofar as this concerns the dimensions of the labels and the presentation of their content. *

   The label is to be designed in accordance with the specifications in Appendix 1.

3. If the data provided by a member is placed in question by another member or by third parties, the member will deal with the complainant according to the procedure quoted in Appendix 4. If the third party is unwilling to accept this procedure, the member company is free to regulate the matter in whatever way it wishes.

4. If one or more provisions of this agreement are interpreted differently, or are impractical in a concrete verification procedure, the members must make use of this agreement accordingly.

Company _____

Name _____

Position _____

Date and Signature _____

Appendix 8

Verification process in the case of a conflict between member companies or a complaint from a third party

In the case of a conflict between the member companies or if the data on the EE or WD is questioned by a third party, the members hereby undertake to behave in accordance with the rules of the Data Verification Agreement that was adopted by the FEA on the 15th July 1999:

Verification process in the case of a conflict between member companies

1. If the data quoted on an EL or WD is questioned, it is the duty of the persons responsible for the Energy Labels to immediately make direct contact with the member company making the complaint, and to compare and investigate the corresponding data together on the basis of evidence (documents). This step should be taken within two weeks of the submission of the complaint. The FEA office must be informed in writing about the conflict.
2. If the values that have been placed in question are unanimously judged to be incorrect, or if appropriate evidence is submitted, the challenged company must inform its customers and/or its dealers in a suitable form within one week. In addition, they will also distribute corrected ELs or WDs within four weeks. The FEA office must be informed in writing about the matter and its settlement.
3. If no settlement of the conflict can be achieved in the negotiations, the appliance that is being questioned must be tested - preferably in the laboratory of one of the companies in order to save time and money. The test result of the company laboratory must be available within six weeks of the start of the conflict. If both parties accept the test result, the steps described in Paragraph 2 above are to be taken.
4. If the parties cannot agree as to the laboratory in which the test will be carried out, or if no agreement can be reached despite the tests being carried out jointly, the test will be carried in a neutral, independent laboratory under strict compliance with European regulations. The result of this test should be available within eight weeks of the start of the conflict or - in the case of a prior test in a company laboratory - ten weeks after the start of the conflict. The result must be accepted by both parties. The costs arising must be paid by the party whose point of view turns out to be incorrect. The subsequent steps described in paragraph 2 above are to be taken.

Verification process in the case of a complaint from a third party

1. If the data on the EL or WD is questioned by a third party, the affected member and the complaining third party should make direct contact in order to attempt to clarify the question(s) that has/have arisen in a conference on the basis of documents. The member company must inform the FEA-office in writing about the conflict. These measures should completed within two weeks of the submission of the complaint.
2. If the values that have been placed in question are unanimously judged to be incorrect, the challenged company must inform its customers and/or its dealers in a suitable form within one week. In addition, they will also distribute corrected ELs or WDs within four weeks. The FEA office must be informed in writing about the matter and its settlement.
3. If no settlement of the conflict can be achieved in the negotiations, a test will be carried out in a neutral laboratory under strict compliance with European regulations. The test result

should be available within eight weeks of the start of the conflict, and the result must be accepted by both parties. The costs arising must be paid by the party whose point of view turns out to be incorrect. The subsequent steps described in paragraph 2 above are to be taken.

Verification of the Energy Label Declarations - Contact persons

Brand name:

.....

The following person is available as the contact person for EL and WD for the above-mentioned product categories:

Name: _____

Position: _____

Address: _____

Post Code/Place: _____

Phone number: _____

Fax number: _____

E-Mail _____

PS.: If you wish to specify several contact persons n (per product category or brand), please copy this page and fill it in correspondingly. Thank you.

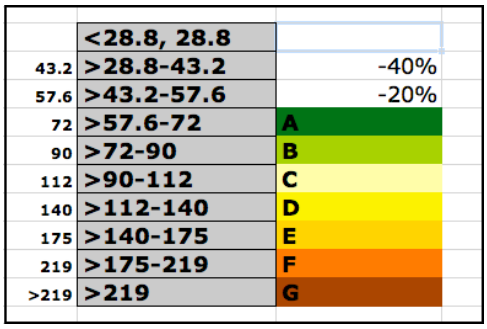
Please note

We recommend to observe the following interpretation for the measuring standard:

1. The **annual consumption** is calculated by multiplying the results, determined in accordance with the standard, by 365.

2. **Scale**: Nothing above A is declared on the label.

   (Data such as A-20 % or A+ can be specified in the product documentation. It must be observed that the new EU Regulation only authorizes "A+, A++ ..." and no "–X%" declaration is permitted.)



	<28.8, 28.8	
43.2	>28.8-43.2	-40%
57.6	>43.2-57.6	-20%
72	>57.6-72	A
90	>72-90	B
112	>90-112	C
140	>112-140	D
175	>140-175	E
219	>175-219	F
>219	>219	G

3. For coffee machines with **auxiliary appliances** (milk foamer, liquid heater, cooling unit etc.) the measurement is fundamentally assumed from the **factory setting**.

   If the auxiliary appliances can be switched off via a hardware switch, it is also to be fundamentally assumed from the factory setting. Everything required for the coffee (as defined in the measuring method) must be in operation; auxiliary appliances that are not required for the preparation of the coffee may be switched off (providing that they have a hardware switch).

4. For **twin appliances**, it depends on whether the units can be switched on or off separately. If there is only one switch, the machine is measured as an entirety.

   Fundamentally, the **factory setting** is decisive. If separate switching is possible, the measurement is carried out for both appliances.

   The *classification on the label* relates to ***one*** *of these* ***measurements***.

   The *annual consumption* must be recorded with the ***dual measurement results***.

5. **"Ready to use"** means that the appliance is in the same condition as if a coffee has been immediately poured previously.

   That means: No time prolongation for the complete production process (i.e. same period between pushing the product selection button and the product is ready in the cup, applicable to the 1st application as well as immediate subsequent applications) => same technical process without delays.

   Th**at does not mean:** Push product selection button, mill begins to grind (or sound of pump, etc.), then a waiting period (e.g. to heat) until the product is brewed and runs into the cup. => technical process has changed/is delayed vs. subsequent applications.

6. **"Consumption measurement during 1 hour"** means that the consumption is measured during a period of 60 min. The appliance must remain in the ready-to-use mode (e.g. through manual reactivation). After 60 minutes, the appliance is in the same condition as if a coffee has been immediately poured previously

FEA 3.12.2009