

## Product Sheet

### Printers and Printer-Fax combinations



### Scope

Normal-paper printers for a minimum format of A4 up to a maximum format of A3 (including oversize A3) and printer-fax combinations as well as high-end colour printer. The models concerned must be available through the trade in Europe in the same configuration as indicated in the registration. The product as sold to the customer should be able to operate on mains voltage (230 Vac). This includes portable equipment that is sold with an external power supply.

### Criteria

Printers are eligible for the GEEA Label if the following criteria are met:

Category	Criteria	Criteria valid till*																						
All printers and printer-fax combinations	The power consumption in the <b>off mode</b> is <b>1 W</b> or less.	31.12.2005																						
	The power consumption in the <b>sleep mode</b> and the <b>default delay times</b> are less than or equal to the values listed below:	31.12.2005																						
	<table border="1"> <thead> <tr> <th rowspan="2">Printing speed in pages per minute (ppm)</th> <th rowspan="2">Power consumption</th> <th colspan="2">Delay time [minutes]</th> </tr> <tr> <th>Printer</th> <th>Fax</th> </tr> </thead> <tbody> <tr> <td>0 &lt; ppm ≤ 10</td> <td>5 W</td> <td>5</td> <td>5</td> </tr> <tr> <td>10 &lt; ppm ≤ 20</td> <td>10 W</td> <td>15</td> <td>5</td> </tr> <tr> <td>20 &lt; ppm ≤ 30</td> <td>15 W</td> <td>30</td> <td>15</td> </tr> <tr> <td>30 &lt; ppm</td> <td>15 W</td> <td>60</td> <td>15</td> </tr> </tbody> </table>	Printing speed in pages per minute (ppm)	Power consumption	Delay time [minutes]		Printer	Fax	0 < ppm ≤ 10	5 W	5	5	10 < ppm ≤ 20	10 W	15	5	20 < ppm ≤ 30	15 W	30	15	30 < ppm	15 W	60	15	
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	For printers without off mode, the power consumption in sleep mode should be 3 W or less and the default delay time should be 30 min. or less.																							
	For high-end colour printer, the power consumption in sleep mode should be 30 W or less and the default delay time should be 30 min. or less.																							
	Criteria for large/wide printers are same as normal printer, according to the equivalent product speed for A4 format.																							

\* See Rules of Registration Procedure

### Compliance with the Energy Star MoU

The compliance with Energy Star can be indicated as follows (X = full compliance)

Mode	Definition	Test Method	Criteria
Off			Not defined for Energy Star
Sleep	X	X	

### Definitions and Test Method

Definition and test method for sleep mode are equal to current Energy Star definition and test method.

#### Definition off mode

Off mode	Operating mode in which the printer is connected to the mains and the main switch of the printer is off.
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#### Test method off mode

To measure off mode power consumption the following steps have to be carried out:

1. The measurement conditions are equal to the measurement conditions for the sleep mode (see Energy Star test method).
2. Connect the printer under test to the mains, switch the printer on and – after some minutes - off.
3. Measure energy consumption in the off mode with a calibrated energy meter (watt-hour meter) over at least one (1) hour. Dividing the measured energy consumption by the time period over which it was measured will produce the average power consumption in watts.
4. State the result in watts (rounded off to the first digit after the decimal point).