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STANDARD

**ISO/IEC**  
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**Information technology — Office  
equipment — Minimum information to be  
included in specification sheets — Copying  
machines**

*Technologies de l'information — Équipements de bureau — Information  
minimale devant figurer dans les notices techniques — Machines à  
reproduire*



Reference number  
ISO/IEC 11159:1996(E)

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## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrical Commission) form the specialised system for worldwide standardisation. National Bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organisation to deal with particular fields of mutual interest. Other international organisations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

In the field of information technology, ISO and IEC have established a joint technical committee ISO/IEC JTC1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75% of the national bodies casting a vote.

International Standard ISO/IEC 11159 was prepared by Joint Technical Committee ISO/IEC JTC1, *Information technology*, Subcommittee SC28, *Office equipment*.

This second edition cancels and replaces the first edition (ISO/IEC 11159:1992), which has been technically revised.

Annexes A and B of this International Standard are for information only.

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## Introduction

Copying machines of many different types and capacities are now available and their specifications vary so widely that it is difficult for potential users to assess which machine might best meet their requirements.

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Withdawn

## Information technology - Office equipment - Minimum information to be included in specification sheets - Copying machines

### 1 Scope

This International Standard is intended to facilitate the users in selecting a copying machine which meets their requirements.

This International Standard specifies the minimum information that shall be included in the specification sheets of copying machines so that users may compare the characteristics of different machines. This International Standard also defines the tests to be made on copying machines in order to verify the specifications given in the specification sheets, when no other Standards are available.

This International Standard applies to copying machines that could be operated in an office environment. Copying machines requiring specially equipped rooms or specially instructed operators are not considered in this International Standard.

### 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

- ISO 554:1976, *Standard atmospheres for conditioning and/or testing - Specifications.*
- ISO 7779:1988<sup>1)</sup>, *Acoustics - Measurement of airborne noise emitted by computer and business equipment.*
- ISO 9295:1988, *Acoustics - Measurement of high-frequency noise emitted by computer and business equipment.*
- ISO 9296:1988, *Acoustics - Declared noise emission values of computer and business equipment.*
- IEC 950:1991, *Safety of information technology equipment, including electrical business equipment.*
- CISPR Pub.22 *Limits and methods of measurement of radio interference characteristics of information technology equipment.*

### 3 Conformance

In order to comply with this International Standard, specification sheets shall contain, in the order shown, all items listed in clause 4 which are relevant to the machine being described.

### 4 Test and measurement conditions

Unless otherwise specified, all tests and measurements shall be conducted at the following conditions:

- temperature: 18 °C to 25 °C
- relative humidity: 30% to 70%
- voltage: rated input voltage
- frequency: rated frequency
- paper size: A4
- paper weight: 60 g/m<sup>2</sup> to 90 g/m<sup>2</sup>

Whenever a capacity is given in sheets, the reference paper weight shall be specified.

When A4 paper size is specified, the size most commonly used in the country can be used, both for the test page and the copies. This shall be indicated in the specification sheet.

When weight of paper (g/m<sup>2</sup>) is given, it is assumed that the paper has been conditioned in the standard atmosphere defined in ISO 554 (temperature 20 °C ± 2 °C; relative humidity 65% ± 5%).

<sup>1)</sup> Currently under revision.

## 5 Information to be included in the specification sheets

Table 1 defines, for each parameter, the number, the name of the parameter, a short description of the entry, and the measurement method. These constitute the information to be included in the specification sheet.

The heading of the specification sheet shall indicate that it has been prepared in accordance with this International Standard. The numbers and headings of the parameters in Table 1 shall be used. Parameters not applicable may be ignored, without changing the numbers of other parameters.

**Table 1 - Parameters**

<b>Parameter</b>	<b>Description of the entry Remarks and examples</b>	<b>Definitions and methods of measurement</b>
<b>1 General data</b>		
<b>1.1 Machine name, model and/or model number</b>	Product name, model number.	
<b>1.2 Type</b>	States if the machine is portable, desk-top, floor-standing (console)	
<b>1.3 Type of platen</b>	Moving or stationary. If moving, states the maximum permissible weight on the platen. If no platen is provided, and the original is to be fed into the machine, indicate "feed-through type".	
<b>2 Copying method</b>		
<b>2.1 Imaging method</b>	Digital, analogue or hybrid. States if imaging method is analogue or digital or possibly a hybrid involving characteristics of both analogue and digital.	
<b>2.2 Copying process</b>	Electrostatic process, electrophotographic process, direct or indirect method, ink-jet, thermal transfer.	
<b>2.3 Developing process</b>	Wet process, dry process, type of developer (mono or dual components).	
<b>2.4 Fusing or fixing system</b>	Heat roller fusing, flash fusing, heat and pressure fusing. Not applicable in the case of wet developing process.	

Table 1 (cont'd)

Parameter	Description of the entry Remarks and examples	Definitions and methods of measurement
<b>2.5 Type of photoreceptor</b>	Selenium, organic material. Applicable only for indirect electrostatic process.	
<b>3 Colour copying</b>		
<b>3.1 Monochrome</b>	Available / not available. Specifies black or alternate single colours.	
<b>3.2 Multi-colour</b>	Available / not available. Also known as functional colour, spot colour, highlight or accent colour. Indicate if colour can be added to a copy, or changed across a copy. State the number of discrete colours that can be reproduced by colorants residing in the machine.	
<b>3.3 Full colour</b>	Available / not available. States if the machine can reproduce full colour originals, continuous tone, half-tone or both.	
<b>4 Copying margins</b>	In millimetres, from the top, bottom, left and right edges of the paper. Indicates the areas in which copying is not possible.	The measurement shall be made using a test page of A4 size, with a pattern, of the users choice, extending inward from the edges of the test page to a line about 20 mm from the edges.  The copier shall be set for a 1:1 magnification and the test page deposited on the platen, aligned with the platen reference markings, if any. Three copies shall then be made in continuous mode, and the maximum blank areas around the page, measured at the centre of each side, shall be the value for this parameter.

Table 1 (cont'd)

Parameter	Description of the entry Remarks and examples	Definitions and methods of measurement
<b>5 Performance data</b>		
<b>5.1 Copying speed</b>	<p>Number of copies per minute.</p> <p>Continuous copying, A4 paper size, 1:1 magnification, steady state.</p>	<p>The copier shall be set for a 1:1 magnification, and an original deposited on the platen.</p> <p>Either of the following two methods of measurement can be used. The method used shall be indicated in the specification sheet.</p> <p>1 Copies shall be made continuously, and the time <math>T</math> (sec.) needed to produce a convenient number <math>N</math> of copies, measured from the time a copy following the first one is fully ejected to the time the <math>N</math>th copy is fully ejected, is measured. The copying speed shall then be:</p> $S = 60 \times \frac{N - 1}{T}$ <p>The value of <math>S</math> (copies/min) shall be rounded off to at least two significant digits. <math>N</math> is chosen to produce repeatable accuracy of <math>\pm 5\%</math>.</p> <p>2 The number of copies produced during one minute is counted, starting the timer from the moment a copy following the first one is fully ejected. The number of copies is the value of the copying speed.</p> <p>Specify for monochrome and colour if different.</p>

Table 1 (cont'd)

Parameter	Description of the entry Remarks and examples	Definitions and methods of measurement
<b>5.2 First copy-out time (FCOT)</b>	In seconds.  Time from the "copy" command to completing delivery of the first copy. Same conditions as in 5.1.	FCOT shall be measured in seconds, and shall not include the warm-up time (5.3), or any automatic adjustment necessary to bring the copier to a ready state.  The copier shall be ready for copying and set for a 1:1 magnification. An original shall be deposited on the platen. The time in seconds from the moment the copy command is issued to the time the first copy is fully ejected shall be measured and reported to two significant digits.
<b>5.3 Warm-up time</b>	1) Time in minutes and/or seconds from power up to ready state.  2) Time in minutes and/or seconds from power saver mode to ready state.	Warm-up time shall be measured in two ways, depending on the status of the copier.  1 If the copier is off, it shall measure the time between power on and the indication of a ready status.  2 If the copier is in a "power saver mode", it shall measure the time between the start command and the indication of a ready status or the beginning of copying.  If the machine is pre-heated, this should be indicated.
<b>5.4 Recommended monthly copy volume</b>	Number of copies per month.  Manufacturers recommended range of use.	For the determination of this parameter, the month is considered consisting of 20 days of 8 hours each.

Table 1 (cont'd)

Parameter	Description of the entry Remarks and examples	Definitions and methods of measurement
<b>5.5 Halftone performance</b>		
<b>5.5.1 Monochrome</b>	Available/not available. States if the machine can produce monochrome halftones from continuous-tone originals.	
<b>5.5.1.1 Screen rulings</b>	Expressed in lines per millimetre or equivalent. States the screen ruling or range of screen rulings available.	
<b>5.5.2 Colour</b>	Available/not available. States if the machine can produce colour halftones from continuous-tone originals.	
<b>5.5.2.1 Screen rulings</b>	Expressed in lines per millimetre or equivalent. States the screen ruling or range of screen rulings available.	
<b>6 Characteristics of the originals</b>		
<b>6.1 Acceptable type</b>	Sheets, books, computer forms.	
<b>6.2 Maximum sizes</b>	Indicate the applicable standard, or dimensions in millimetres. A sizes, B sizes, North American sizes.	Specify originals whose content can be completely reproduced. Indicate if the accepted size is different for sheets and books.

Table 1 (cont'd)

<b>7 Input document handling</b>	Refers to "on line" capability integrated with the copier.	
<b>7.1 Document handler type</b>	Name.  States if automatic re-circulating (pre-collating), automatic feeding (post-collating), or semiautomatic positioning (single sheet or stream feed).	
<b>7.2 Loading (ordering and user aspects)</b>	Specifies ordering and user aspects.  State if originals are loaded in natural reading order, and face-up or face-down.	
<b>7.3 Original sizes</b>	Minimum and maximum. Indicates applicable standard or dimensions in millimetres. Specifies ability to handle mixed sizes.  A sizes, B sizes, North American sizes.	Specify originals which can be handled, and reproduced according to 6.2.
<b>7.4 Paper weight</b>	Minimum and maximum in g/m <sup>2</sup> .  States restrictions on weight of originals.	The manufacturer shall indicate the range of paper weight (in g/m <sup>2</sup> ) to provide normal warranted performance, and the reference paper weight to be used for capacity definition.
<b>7.5 Capacity</b>	Number of originals stackable in the handler.	The manufacturer shall indicate the nominal capacity with respect to the reference paper weight. Testing shall be done by filling the paper supply source with paper from a newly opened package and counting the sheets.

Table 1 (cont'd)

Parameter	Description of the entry Remarks and examples	Definitions and methods of measurement
<b>7.6 Original exchange speed</b>	<p>Sheets per minute.</p> <p>Specifies the exchange speed of A4 originals when one 1:1 copy is made of each A4 original in succession.</p>	<p>The copier shall be set for one copy of the original, non-collate or non-sort mode, no other special features like auto paper select, auto exposure, etc.</p> <p>The measurement shall be conducted with the document handler working, starting from the copy following the first one out.</p> <p>Copies shall be made continuously, and the time <math>T(\text{sec})</math> needed to use a number <math>N</math> of originals (10 or more), measured from the time a copy following the first one is fully ejected to the time the <math>N</math>th copy is fully ejected, is measured. The original exchange speed shall then be:</p> $S = 60 \times \frac{N - 1}{T}$ <p>The value of <math>S(\text{shts/min})</math> shall be rounded off to at least two significant digits.</p> <p><math>N</math> is chosen to produce a repeatable accuracy of <math>\pm 5\%</math>.</p>
<b>7.7 Duplex originals</b>	<p>Yes/no/optional.</p> <p>Specifies any restriction.</p>	
<b>7.8 Computer forms feeding</b>	<p>Available/not available; automatic feed or single sheet.</p>	
<b>7.9 Automatic size and position sensing</b>	<p>Standard/optional.</p> <p>Specifies if correct copy paper size for 1:1 reproduction is available and automatically selected; user warning provided/not provided if correct paper size unavailable.</p>	

Table 1 (cont'd)

Parameter	Description of the entry Remarks and examples	Definitions and methods of measurement
<b>8 Output material</b>		
<b>8.1 Paper type required</b>	Plain, coated, thermal paper. Recycled paper	The manufacturer shall specify for which copying materials, other than normal paper, normal warranted performance can be assured.
<b>8.2 Special material</b>	Transparent sheets, labels, envelopes and recycled paper.	The manufacturer shall specify the special copying materials that can be processed, even if copying performance is degraded.
<b>8.3 Paper size</b>		The manufacturer shall state the minimum and maximum width and the minimum and maximum length of the paper. This indication can be given either in millimetres or quoting standard paper sizes.
<b>8.3.1 Paper in sheet</b>	Available/not available. Minimum and maximum. Indicates the applicable standard dimensions in millimetres.  A sizes, B sizes, North American sizes.	
<b>8.3.2 Paper in rolls</b>	Available/not available. Width, maximum and minimum in millimetres; length in metres; diameter of the roll, in millimetres.  Indicates if length is manually pre-selectable (maximum and minimum); and if the paper is cut automatically to length of original.	
<b>8.4 Paper weight</b>	Minimum and maximum in $g/m^2$ .  Specifies if for sheet or roll. Specifies if for single copy, duplex mode or both.	The manufacturer shall indicate the range of paper weight (in $g/m^2$ ) to provide normal warranted performance, and the reference paper weight to be used for capacity definition.

Table 1 (cont'd)

Parameter	Description of the entry Remarks and examples	Definitions and methods of measurement
<b>9 Paper handling</b>		
<b>9.1 Paper supply device</b>	Manual, cassette, tray, drawer.  Indicates which feeding systems are standard and which are optional.	
<b>9.2 Paper supply capacity</b>	Number of sheets for each paper supply device.	The manufacturer shall indicate the nominal capacity with respect to the reference paper weight. Testing shall be done by filling the paper supply source with paper from a newly opened package and counting the sheets.
<b>9.3 Paper feed direction</b>	Long edge feed or short edge feed.  Indicates the paper sizes.	
<b>10 Output copy handling</b>		Refers to "in line" capability integrated with the copier
<b>10.1 For machines which post-collate copied sets</b>		
<b>10.1.1 Sorter</b>	Standard/optional/not available.	
<b>10.1.1.1 Acceptable paper sizes</b>	Minimum and maximum. Indicates the applicable standard name and/or dimensions in millimetres.  A sizes, B sizes, North American sizes.	The manufacturer shall state the minimum and maximum width and the minimum and maximum length of the paper. This indication can be given either in millimetres or quoting standard paper sizes.
<b>10.1.1.2 Number of bins</b>	Indicates if non-sort bin is provided.	
<b>10.1.1.3 Bin capacity</b>	Number of sheets in each bin.	The manufacturer shall indicate the nominal capacity with respect to the reference paper weight. Testing shall be done by counting the number of sheets in a filled receptacle.
<b>10.1.1.4 Stapling</b>	Standard/optional/not available.  Refers to in-bin capability.	

Table 1 (continued)

Parameter	Description of the entry Remarks and examples	Definitions and methods of measurement
10.1.1.4.1 Capacity	Maximum number of staples.	
10.1.1.4.2 Set size	Maximum number of sheets per stapled set.	The manufacturer shall specify the number of sheets, of the reference paper weight, that can be stapled with normal warranted performance.
10.2 For machines which pre-collate copied sets	States which capabilities can be provided together.	
10.2.1 Output catch tray	Standard/optional/not available.	
10.2.1.1 Paper sizes	Maximum and minimum standard sizes. Indicates the applicable standard or dimensions in millimetres. A sizes, B sizes, North American sizes.	The manufacturer shall state the minimum and maximum width and the minimum and maximum length of the paper. This indication can be given either in millimetres or quoting standard paper sizes.
10.2.1.2 Capacity	Maximum number of sheets.	The manufacturer shall indicate the nominal capacity with respect to the reference paper weight. Testing shall be done by counting the number of sheets in a filled receptacle.
10.2.1.3 Offsetting capability (shifting)	Standard/optional/not available. If available, specifies minimum offset distance between sets in millimetres. Allows physical separation of copied sets.	
10.2.2 Stacker	Standard/optional/not available.	
10.2.2.1 Paper sizes	Maximum and minimum standard sizes. Indicates the applicable standard or dimensions in millimetres. A sizes, B sizes, North American sizes.	The manufacturer shall state the minimum and maximum width and the minimum and maximum length of the paper. This indication can be given either in millimetres or quoting standard paper sizes.

Table 1 (continued)

Parameter	Description of the entry Remarks and examples	Definitions and methods of measurement
<b>10.2.2.2 Capacity</b>	Maximum number of sheets.	The manufacturer shall indicate the nominal capacity with respect to the reference paper weight. Testing shall be done by counting the number of sheets in a filled receptacle.
<b>10.2.3 Stapler</b>	Standard/optional/not available.	
<b>10.2.3.1 Capacity</b>	Maximum number of staples.	
<b>10.2.3.2 Set size</b>	Maximum number of sheets for stapled set.	
<b>10.2.3.3 Offsetting capability (shifting)</b>	Standard/optional/not available. If available, specifies minimum offset distance between sets in millimetres. Allows physical separation of copied sets.	
<b>10.2.4 Folder</b>	Standard/optional/not available.	
<b>10.2.4.1 Paper sizes</b>	Maximum and minimum standard sizes. Indicates the applicable standard or give dimensions in millimetres. A sizes, B sizes, North American sizes.	The manufacturer shall state the minimum and maximum width and the minimum and maximum length of the paper. This indication can be given either in millimetres or quoting standard paper sizes.
<b>10.2.4.2 Set size</b>	Maximum number of folded sheets.	
<b>10.2.4.3 Types of fold</b>	State z-fold, signature, etc.	
<b>10.2.5 Binder</b>	Standard/optional/not available.	Indicate details.
<b>10.2.5.1 Process</b>	Description or name. On-line, hot or cold, wet or dry.	

Table 1 (cont'd)

Parameter	Description of the entry Remarks and examples	Definitions and methods of measurement
<b>10.2.5.2 Paper sizes</b>	Maximum and minimum standard sizes. Indicates the applicable standard or dimensions in millimetres.  A sizes, B sizes, North American sizes.	The manufacturer shall state the minimum and maximum width and the minimum and maximum length of the paper. This indication can be given either in millimetres or quoting standard paper sizes.
<b>10.2.5.3 Set size</b>	Maximum number of bound sheets.	
<b>10.2.6 Other capabilities</b>	State other finishing capabilities, e.g. insertion, shrink wrap, punching, drilling, stitching, etc.	
<b>11 Reduction/enlargement</b>		A test page shall be made of A4 paper, with a test pattern consisting of a square, having a side of at least 10 cm, printed in the center of the page and with the sides parallel to the sides of the page. This test page shall be used in the following parameters 11.1, 11.2, 11.3
<b>11.1 Possible reduction</b>	Minimum copy size as a percent of the original.  Indicates if in discrete steps and/or continuous.	The copier shall be set for the required reduction and the test page deposited on the platen, aligned with the platen reference markings, if any. Three copies shall then be made in continuous mode, and the relationship between the size of the image on the original and on the copy (averaged on the three copies) and expressed in percent of the original, shall correspond to the setting of the copier. Any measurable difference for the values measured in the direction of paper travel and in the direction perpendicular to travel shall be reported.

Table 1 (cont'd)

Parameter	Description of the entry Remarks and examples	Definitions and methods of measurement
<b>11.2 Possible enlargement</b>	<p>Maximum copy size as a percent of the original.</p> <p>Indicate if in discrete steps and/or continuous.</p>	<p>The measurement for the maximum value and possibly at intermediate values shall be made using a test page as defined in 11.</p> <p>The copier shall be set for the required enlargement and the test page deposited on the platen, aligned with the platen reference markings, if any. Three copies shall then be made in continuous mode, and the relationship between the size of the image on the original and on the copy (averaged on the three copies) and expressed in percent of the original, shall correspond to the setting of the copier. Any measurable difference for the values measured in the direction of paper travel and in the direction perpendicular to travel shall be reported.</p> <p>When the image is enlarged beyond the paper size, a square size of less than 10 cm may be used, and the size used shall be reported.</p>
<b>11.3 Precision of 1:1 ratio</b>	<p>Percent deviation between original and copy dimensions.</p> <p>Indicates for the paper feeding direction and the perpendicular direction.</p>	<p>The measurement shall be made using a test page as defined in 11.</p> <p>The copier shall be set for 1 : 1 ratio and the test page deposited on the platen, aligned with the platen reference markings, if any. Three copies shall then be made in continuous mode, and the deviation percent between the size of the original and of the copy (averaged on the three copies) shall be given for the direction of paper travel and the direction perpendicular to travel.</p>

Table 1 (cont'd)

Parameter	Description of the entry Remarks and examples	Definitions and methods of measurement
<b>12 Manufacturer-declared copying features</b>		
<b>12.1 Duplex copying</b>	Available/not available/optional.	
<b>12.2 Others</b>	Lists available copying features (automatic paper size selection, automatic magnification selection, trimming, masking, page separation copying, image density control, job interrupt).	
<b>13 Maximum pre-selectable number of copies</b>	Number of copies. Specifies any continuous use limitations.	
<b>14 Physical characteristics</b>		
<b>14.1 Dimensions</b>	Width x depth x height (centimetres). Indicates if it is the envelope around or if trays, knobs etc. are not included.	
<b>14.2 Space required - operation</b>	Width x depth x height (centimetres). Varies with options. This parameter includes space for operator functions such as paper handling and jam removal. Indicates if it is with or without accessories.	
<b>14.3 Space required - maintenance</b>	Width x depth x height (centimetres). The parameter includes space for access to all service areas and the use of required tools. Indicates if it is with or without accessories.	

Table 1 (cont'd)

Parameter	Description of the entry Remarks and examples	Definitions and methods of measurement
<b>14.4 Weight</b>	Installed weight in kilograms.  Indicates if it is with or without accessories. For console machines, indicates if the machine is with wheels or rollers.	
<b>15 Operating environment</b>	Minimum and maximum ambient temperature, and related range of relative humidity.  This indication is intended to give the user a guide to the expected machine operating environment.	
<b>16 Power source</b>	Power rating plate as per IEC 950.	
<b>16.1 Rated voltage or voltage range</b>	Expressed in volts. Indicates if AC or DC. AC power: indicates the number of phases. DC power: indicates if built-in battery. Indicates tolerances.	
<b>16.2 Rated frequency or frequency range</b>	Expressed in hertz. For AC power only. Indicates tolerance.	
<b>16.3 Current</b>	Maximum current in amperes.  Indicates if special mains fuses are required.	The maximum current shall be measured and indicated in Amperes. This measurement shall be made with all the settings that can have an influence on the current value set to the case producing the maximum value. The inrush current at the starting of the machine shall not be considered for this indication, but shall be taken into consideration for the specification of the fuses. Specify for both basic and maximum configuration.

Table 1 (cont'd)

Parameter	Description of the entry Remarks and examples	Definitions and methods of measurement
<b>16.4 Power</b>	<p>Maximum power in kilowatts</p> <ul style="list-style-type: none"> <li>- operating</li> <li>- standby.</li> </ul> <p>Indicates the value at the rated input voltage.</p>	<p>The maximum power shall be measured and indicated in kilowatts. This measurement shall be made with all the settings that can have an influence on the current value set to the case producing the maximum value.</p> <p>Specify for both basic and maximum configuration.</p>
<b>16.5 Average Power consumption</b>	<p>Average power consumption per hour in kilowatts</p> <ul style="list-style-type: none"> <li>- operating</li> <li>- standby</li> <li>- power saver mode.</li> </ul> <p>For operating mode, indicates the average power consumption for continuous copying on A4 paper, 1:1 ratio, of a document with 4 % to 7 % coverage. Useful for estimating air conditioning requirements.</p>	<p>The average power consumption per hour shall be stated in kilowatts. The measurement shall be made with the machine in a steady state, during a test period of not less than 10 minutes. An integrating measuring instrument shall be used.</p> <p>The power consumption shall be measured under the following conditions:</p> <ul style="list-style-type: none"> <li>– standby status (machine ready to work)</li> <li>– "power saver mode" condition</li> <li>– continuous copying in A4 size paper, with a 1 : 1 ratio, of an original with a 4% to 7% image coverage.</li> </ul> <p>Specify for both basic and maximum configuration.</p>
<b>17 Safety</b>		
<b>17.1 Safety regulations</b>	<p>Applicable standards.</p> <p>Indicates the applicable national deviations.</p>	
<b>17.2 Safety data sheets</b>	<p>Available/not available.</p> <p>Indicates the possible hazardous material and the way to dispose of it, if required.</p>	

Table 1 (concluded)

Parameter	Description of the entry Remarks and examples	Definitions and methods of measurement
<b>18 Electromagnetic compatibility (EMC)</b>	Applicable standards. Emission and susceptibility to be considered.	
<b>19 Emissions</b>		
<b>19.1 Acoustical noise</b>	Sound power levels and sound pressure levels.	Measure according to ISO 7779 and ISO 9295. Declare according to ISO 9296. Specify for basic and maximum configuration.
<b>19.2 Heat emission</b>	For estimating purposes it may be considered that the power consumed by a copier is nearly completely transformed in heat.	The heat emission per hour shall be indicated in kW, for the three conditions specified under 16.5. $\text{heat emission per hour} = \frac{\text{Power consumption [kW]}}{3600}$
<b>20 Consumable supplies</b>	Customer replacement and material reclaiming dispositions. Lists the consumable items and the packaging.	
<b>21 Optional equipment</b>	Peripheral equipment that changes the functionality of the machine (e.g. a sorter, a document handler, a 35 mm slide projector, a fanfold paper feeder).	
<b>22 Accessory equipment</b>	Peripheral equipment that does not change the functionality of the machine (e.g. paper cabinet).	
<b>23 Others</b>	An entry category for the supplier to highlight features or functionality that does not fit in any of the previous listed parameters.  Remote diagnostic capability, user interfaces, connectivity from a communication perspective.	

## Annex A

(informative)

### Bibliography

ISO 216:1975, *Writing paper and certain classes of printed matter - Trimmed sizes - A and B series.*

IEC 825-1:1993, *Safety of laser products - Part 1: Equipment classification, requirements and user's guide.*

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**5. Performance data**

5.1 Copying speed  
 Number of copies per minute .....

additional information \_\_\_\_\_

5.2 First copy out time ..... seconds  
 document on platen  automatic document handling

5.3 Warm-up time  
 from power up to ready state ..... min ..... seconds  
 from power saver mode to ready state ..... min ..... seconds

5.4 Recommended monthly copy volume: \_\_\_\_\_  
 .....

5.5 Halftone performance

5.5.1 Monochrome reproduction

5.5.1.1 Screen rulings ..... lines per mm

5.5.2 Full colour reproduction

5.5.2.1 Screen rulings ..... lines per mm

**6. Characteristics of the original**

6.1 Acceptable type \_\_\_\_\_

6.2 Max. Sizes: ..... or ..... mm x ..... mm  
 additional information \_\_\_\_\_

**7. Input document handling**

7.1 Document handler type \_\_\_\_\_  
 pre-collating  post-collating  single sheet feed

7.2 Positioning (loading)  
 original face-up  original face-down

7.3 Original sizes  
 min. size: ..... or ..... mm x ..... mm  
 max. Size: ..... or ..... mm x ..... mm  
 mixed sizes

7.4 Paper weight: min ..... g/m<sup>2</sup> max ..... g/m<sup>2</sup>

7.5 Capacity document handler max ..... originals

7.6 Original exchange speed: ..... sheets per minute

7.7 Duplex originals: YES  NO  optional

7.8 Computer forms feeding  
 automatic feed  manually