

Blue Angel Environmental Information and Data Sheet

Model: M C320FW

EDP: 423632

Valid from: 23.12.2024

Primary functions in the basic configuration:	Copy, print, scan
Technology:	Electrophotographic
Print speed simplex black and white/full color DIN-A4 pages/minute, according to ISO/IEC 24734:	32/ 32
Copying speed simplex black and white/ full color DIN-A4 pages/minute, according to ISO/IEC 24735:	32/ 32
Scope:	The system is designed for use in the professional/commercial sector.

Ecolabel



The requirements of the Blue Angel DE-UZ 219 ecolabel were tested and fulfilled with the consumables (toner) supplied and recommended by Ricoh. Further information on the Blue Angel can be found at: www.blauer-engel.de/uz219



ENERGY STAR®: The system meets the requirements of ENERGY STAR® 3.0/3.1/3.2 for imaging equipment with the TEC value.

Compliance with legislation

The system complies with the following EU and regional legislation, where applicable, and bears the CE mark.

✓ Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC	✓ Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment
✓ Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS Directive)	✓ Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001 on general product safety

Power Consumption

Operating Mode	Icon	Activation time ¹⁾ in minutes (default)	Return time ²⁾ [s]	Power Consumption [W]
Maximum power consumption				1420
Continuous printing 32 ppm (15 minutes printing) monochrome				431
Ready				22.9
Sleep mode		1	13	0.63
Off mode		Main switch		<0.1

1) Activation Time: The time that elapses after the end of printing until the machine automatically enters an idle state. 2) Return Time: The time it takes for the device to transition from a low-power state to print-readiness.



TEC Reference Value determined according to ENERGY STAR® 3.0/3.2/3.2: **0.33 kWh/week**



Note on TEC (Typical Electricity Consumption). The aim of the TEC method is to determine the energy efficiency of hardcopy devices (copiers, printers, multifunctional systems) and to make them comparable. The method determines the energy consumption of a product over a fixed period of time under normal operating conditions. The following duty cycle is assumed for the present system:

32 print jobs per working day, each with 16 pages, single-sided in monochrome printing, i.e. 512 pages/day.

This results in electricity consumption of 0.332 for one week (7-day week with 5 working days of 8 hours each) in the standard duty cycle according to ENERGY STAR®.



This product is preset and designed to save you electricity costs. The system automatically reduces energy consumption if it is not used for a certain period of time (1 min). This mode is called sleep mode. In sleep mode, the [Power Saving] button will flash slowly. From these states, the system returns to ready mode in a short time (return time listed above) as soon as it receives a print or copy job. This allows you to save energy without restricting your productivity. With its return time, the system meets the high requirements of the Blue Angel, which attaches great importance to a high level of user-friendliness, especially in this respect.

The activation times for sleep mode can be changed by the user in the range of 1-60 minutes.

However, if the activation times are increased, this leads to higher energy consumption and thus to higher electricity costs. It is therefore recommended that you do not change the default activation times.

When the main switch is activated, there is still a power consumption of max. 0.04 Watt. Complete disconnection from the mains can be achieved by unplugging the mains plug. Please be sure to follow the instructions in the user manual to prevent damage to the system and possible data loss.

The device is designed in such a way that it can be set to the off mode at least twice a day.

Noise emissions base unit, determined in accordance with DE-UZ 219 Section 3.5 in print mode

Declared Sound Sower Level (LWAd in dB(A))BW	67.9
Declared Sound Power Level (LWAd in dB(A)) Co	67.8

Noise emissions base unit, determined in accordance with ISO 7779 in conjunction with ISO 9296

	Standby	Operation Monochrome	Operation Full Color
Sound power level (LWA in dB(A))	16.5	65.4	64.90
Declared sound power level (LWAd in B(A))	2	6,8	6.80
Sound pressure level operator position (LpA in dB(A))	3.8	59.3	59.5
Sound pressure level bystander position (LpA in dB(A))	3.5	55.4	55.4

Material emissions

		Monochrome		Color	
		Reading	Requirement acc to DE-UZ 219	Reading	Requirement acc to DE-UZ 219
Standby phase	TVOC [mg/h]	< 0.010	2	< 0.010	2
	TVOC [mg/h]	1.09	10	2.9800	18
	Benzene [mg/h]	< 0.02	< 0.05	< 0.02	< 0.05
Operation phase (sum of standby + printing phase)	Styrene [mg/h]	< 0.10	1.0	< 0.10	1.8
	Unidentified VOC [mg/h]	< 0.10	0.9	< 0.10	0.9
	Ozone [mg/h]	< 0.40	1.5	< 0.40	3.0
	Dust [mg/h]	N/A	4.0	< 1.5	4.0
Printing phase	PER10 PW [Particles/10 min]			Not quantifiable	2.5 * 10 ¹¹

LD = limit of detection, LQ = limit of quantification



Recommendation according to the Blue Angel: New electronic devices generally release volatile substances into the indoor air. Therefore, especially in the first few days after the device has been installed, sufficient air exchange should be ensured in the installation rooms and, if necessary, at the workplace.

The system is equipped with an ozone filter: not applicable

The system is equipped with dust filter(s). not applicable

Further information on the replacement cycle of the filters can be found in the operating instructions.

Use and labeling of materials

Paper	The device is suitable for processing recycled paper that complies with EN 12281:2002. We recommend using the device in duplex mode (double-sided copying/printing) Equipping the model with a duplex and N-up function: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Available as an optional accessory
Colorants	Toner CMYK
Ames-Test Toner / Ink/ Gel	Negative, see also Safety Data Sheet for Toner
Photoconductor drum	Organic Photoconductor (OPC)
Batteries	Lithium-ion battery (One cell battery)
Flame retardant	No halogenated flame retardants are used in housing parts and other plastic parts over 25 g, in particular: <ul style="list-style-type: none"> ■ Polybrominated Biphenyle (PBB), ■ Polybrominated biphenyl ethers (PBDE) and ■ Tetrabrombisphenol A (TBBPA).
Labelling of plastics	All plastic parts >25g are marked according to ISO 11469:2000 and ISO 1043
Recycled plastic content (post-consumer)	50.8 %

Yield/ Service Life Consumables:

Designation	EDP	Yield (A4)	Methodology
Print Cartridge Black M C320H	842710	10,500	ISO 19798
Print Cartridge Cyan M C320H	842711	7,500	
Print Cartridge Magenta M C320H	842712	7,500	
Print Cartridge Yellow M C320H	842713	7,500	
Starter cartridge:	ca. 2,500 black, 1.500 CMYK		



The actual yield depends on the image size and brightness, the number of pages to be printed at once, the type and format of paper used, the content of the printed images and the environmental conditions such as temperature and humidity. Further information on running times and the respective change cycle of consumables can be found in the operating instructions for the system.



Do not open the toner containers by force, when replacing them, please follow the instructions in the operating instructions. As a result of improper handling, do not inhale any toner that may leak, but absorb it with a damp cloth. Avoid skin contact. If toner does get on the skin, wash off affected areas with plenty of cold water and soap.



Keep toner (old or new) out of the reach of children!

Longevity



The warranty for the devices corresponds to the legal regulations, insofar as they are binding. All Ricoh distributors and subsidiaries offer all-in service contracts that go beyond the statutory warranty. Please contact your local Ricoh office or sales representative. Consumables and vital spare parts are available at least 7 years after the last device in this series has been sold.



Cleaning, maintenance and disposal activities may only be carried out by competent personnel.

Further information on cleaning and maintaining the system can be found in the operating instructions in the chapter "Maintenance and specification".

Recycling and disposal

Empty toner container:	Take-back via the Ricoh Smart Return system
Filled toner containers:	Filled waste toner containers should not be disposed of with household and commercial waste. They can be handed in at any RICOH branch and at any RICOH dealer.
Resttoner:	Take-back via the Ricoh Smart Return
Batteries:	Nationwide take-back system for used batteries. Do not dispose of batteries with household waste.
Photoconductor units and spare parts:	Take-back via the Ricoh Smart Return
Devices:	End of life equipment is taken back and refurbished in an environmentally friendly manner or - if this is no longer possible - recycled. Information about collection points for used Ricoh products in Germany can be obtained from Ricoh dealers or via the Ricoh website: Kontakt: Contact Us Ricoh Europe (ricoh-europe.com)



For information on Ricoh's pan-European consumables collection system, please visit the following website:
<https://www.ricoh-return.com>



All information in this data sheet is based on the current state of our knowledge. They do not constitute an assurance of the properties of the product described within the meaning of the statutory warranty provisions.

Last modified:

23 December 2024: Correction power consumption and PCR plastic content

This edition replaces all previous versions.