



EcoLeaf

Type III Environmental Declaration (EPD)

Registration number : JR-AI-23234E

Japan EPD Program by SuMPO

Sustainable Management Promotion Organization  
14-8, Uchikanda 1-chome, Chiyoda-ku, Tokyo Japan  
<https://ecoleaf-label.jp/>

RICOH COMPANY,LTD

Black & White MFP (Electrophotography)

# IM 460F (for AP)



## Functional unit

Per product

## System boundary

■ final products    □ intermediate products  
Raw material acquisition, Production, Distribution,  
Use & maintenance, End-of-Life

## Main specifications of the product

Product name: IM 460F    Product destination: AP  
Main specifications:  
Black & White MFP (Electrophotography)  
Print Speed : 46 prints/minute (A4)  
Maximum Paper Size : A4  
Included Units in Assessment : Automatic Reversing  
Document Feeder, Automatic Duplexing Unit

## Company Information

RICOH COMPANY,LTD  
Tel:(03) 3777-8111

Registration#	JR-AI-23234E
PCR number	PA-590000-AI-07
PCR name	Imaging input and/or output equipment
Publication date	7/31/2023
Verification date	7/25/2023
Verification method	Product-by-product
Verification#	JV-AI-23234
Expiration date	7/24/2028
PCR review was conducted by:	
Approval date	4/27/2023
PCR review panel chair	Masayuki Kanzaki (SuMPO)

## Third party verifier\*

Takahiro Atou

Independent verification of data & declaration in accordance with ISO14025

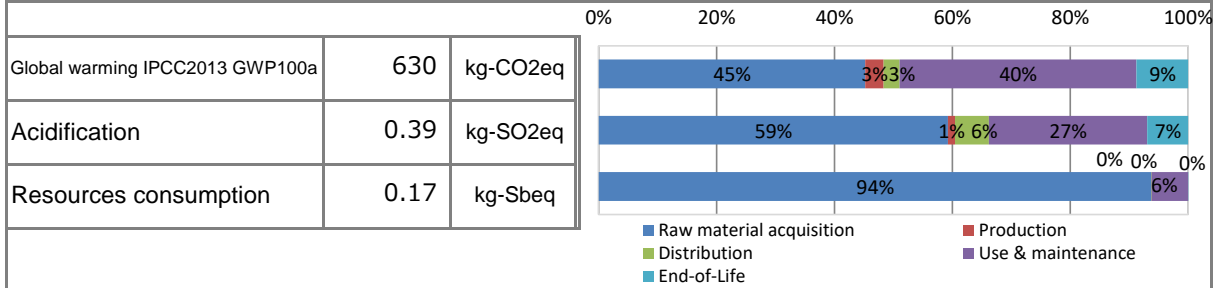
internal     external

\*Auditor's name is stated if system certification has been performed.

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**1. Results of life cycle impact assessment (LCIA)**



Parameter	stage	Unit	Total	Raw material acquisition	Production	Distribution	Use & maintenance	End-of-Life
Global warming IPCC2013 GWP100a		kg-CO <sub>2</sub> eq	6.3E+02	2.8E+02	1.9E+01	1.7E+01	2.5E+02	5.5E+01
Acidification		kg-SO <sub>2</sub> eq	3.9E-01	2.3E-01	4.7E-03	2.2E-02	1.1E-01	2.7E-02
Resources consumption		kg-Sbeq	1.7E-01	1.6E-01	5.0E-05	7.2E-05	1.1E-02	2.1E-05

**2. Life cycle inventory analysis (LCI)**

Parameter	Value	Unit
Non-renewable material resources	3.2E+01	kg
Renewable material resources	5.7E+01	kg

**3. Material composition**

Material	Value	Unit
SUS	0.30	kg
Aluminum	0.25	kg
Ordinary steel	19	kg
Other metals	1.8	kg
Thermoplastic resin	17	kg
Thermosetting resin	0.94	kg
Glass	0.88	kg
Rubber	0.21	kg
Paper	6.5	kg
Lubricant	0.0012	kg
Mounting circuit board	0.83	kg
Wood	0.00027	kg



\*Data derived from LCA and not assigned to the impact categories of LCIA

**5. Additional explanation**

Products selected in the scenario used for load calculation

- Multifunction device (EP)
- Product destination: AP ※
- ※Transportation scenarios are for China, Thailand, and Ricoh Group.from three production sites in Japan, North America, Europe, on transportation routes to the five poles of China, Oceania and Japan transport load calculate the weighted average of transportation activity per kg of product from the total calculated using the annual production volume for each pole .Then, it is used as a transportation unit of calculation.
- Expected usage period: 5 years
- Estimated number of sheets:316800 sheets ※
- ※Compatible with International Energy Star Program Ver.3.0
- The load on the image output medium (printing paper) is not included.

**6-1. Supplementary environmental information**

Compliant with the International Energy Star Program Ver.3.0. It also complies with the European RoHS Directive.

Assembly production of this product and production of the main parts, photoconductor and toner, are carried out at an ISO14001 certified factory.

Certification number:BSI-EMS646026                      JQA – E-70001

<https://jp.ricoh.com/sustainability/environment/management/iso>

**7. Assumptions of secondary data used**

IDEA v2.1.3, and registered data of Japan EPD Program by SuMPO v1.13 are used.

**8. Remarks**

- For data quantification, please refer to PCR and Rules on quantification and declaration.
- Comparative assertion is permitted only when Rules on quantification and declaration are satisfied.  
(Reference URL : <https://ecoleaf-label.jp/regulation/>)