



## Hitachi, Ltd. Hitachi Virtual Storage Platform E590H

**Functional unit**

Per sales unit (per unit)

**System boundary**

- final products       intermediate products

**Main specifications of the product**

All-Flash and Magnetic-Disc Array

- Controller chassis

HT-40SK-E590H, HT-40SK-E590EH

Up to 24 NVMe SSD

The suffix E means encryption model

Up to 1 unit

- Drive box

HT-F40SK-DBS((Up to 24 SAS SFF SSD/HDD)

Up to 8 units

HT-F40SK-DBL (Up to 12 SAS LFF HDD)

Up to 8 units

HT-F40SK-DB60 (Up to 60 SAS LFF HDD)

Up to 8 units

\*The maximum installed drives represents

the case of connecting only a single type of drive box

The mix of the SAS/NVMe drive is excluded

- Assumed operating years : 5years

\* The specifications listed are subject to change without notice due to product improvements.

**Company Information**

Hitachi, Ltd.

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|                                     |   |
|-------------------------------------|---|
| <b>Registration#</b>                | JR-BF-22003C  |
| <b>PCR number</b>                   | PA-520000-BF-01   |
| <b>PCR name</b>                     | IT equipment  |
| <b>Publication date</b>             | 3/18/2022   |
| <b>Verification date</b>            | 3/4/2022  |
| <b>Verification method</b>          | Product-by-product  |
| <b>Verification#</b>                | JV-BF-22003   |
| <b>Expiration date</b>              | 3/3/2027  |
| <b>PCR review was conducted by:</b> |   |
| <b>Approval date</b>                | 2/19/2021   |
| <b>PCR review panel chair</b>       | Ken Yamagishi<br>Sustainable Management Promotion Organizetic |
| <b>Third party verifier*</b>        |   |
|                                     | Yasuo Kozeki  |

Independent verification of data &amp; declaration in accordance with ISO/TS14067

 internal external

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



1. Quantification results, and contents of the declaration

CFP quantification unit :

| Parameter                             |                          |                                   | Unit                            |
|---------------------------------------|--------------------------|-----------------------------------|---------------------------------|
| <b>CFP Quantification results</b>     |                          | <b>160,000</b>                    | <b>kg-CO<sub>2</sub>eq</b>      |
| Breakdown                             | Raw material acquisition | 4,900                             | kg-CO <sub>2</sub> eq           |
|                                       | Production               | 2,300                             | kg-CO <sub>2</sub> eq           |
|                                       | Distribution             | 80                                | kg-CO <sub>2</sub> eq           |
|                                       | Use & maintenance        | 150,000                           | kg-CO <sub>2</sub> eq           |
|                                       | End-of-Life              | 46                                | kg-CO <sub>2</sub> eq           |
| <b>Value on CFP mark</b>              |                          | <b>160,000</b>                    | <b>kg-CO<sub>2</sub>eq</b>      |
| <b>Unit for the value on CFP mark</b> |                          | <b>Per sales unit (per unit)</b>  |                                 |
| <b>Value on CFP mark</b>              |                          | <b>4.9</b>                        | kg-CO <sub>2</sub> eq/TB · Year |
| <b>Unit for the value on CFP mark</b> |                          | <b>Per TB · Year<sup>*1</sup></b> |                                 |

\*Quantification results may slightly differ from the sum of the breakdown due to rounding of fractions.

\*1 The amount of CO<sub>2</sub> emissions per unit function. Divided CFP results by the storage capacity (TB) and the assumed service life (Years).

3. Supplementary environmental information

Empty box for supplementary environmental information.

2. Additional information

<Products>

- Product Name : Hitachi Virtual Storage Platform E590H

- Conditions for calculating CO<sub>2</sub>eq emissions :

Calculated using 1 controller chassis (HT-40SK-E590H) with 24 NVMe SSDs installed. and 8 drive boxes (HT-F40SK-DBS) with the maximum installed of 192 SAS SSDs

- Product type name of the scenario used :

Disk array (Solid State Drive(SSD) installed)

<Product main specifications>

Storage capacity<sup>\*1</sup> : 6,480TB

Operating years<sup>\*2</sup> : 5 years

Drive type : Solid State Drive (NVMe SSD, SAS SSD)

Drive interfaces : NVMe/SAS

Installed drives : 216 units

- CO<sub>2</sub>eq emissions :

-Per product : 160 t-CO<sub>2</sub>eq

-Per 1TB · 1Year : 4.9 kg-CO<sub>2</sub>eq/TB · Year

- Measurement conditions :

-Power during use is measured by the measurement method specified by certified PCR (PA-520000-BF-01)

\*1 The capacity is calculated as 1TB = 1,000,000,000,000 bytes

\*2 The operating years were assumed to be the statutory useful life(5 years for computer/others)

#### 4. Interpretation

- Greenhouse gas emissions at the use and maintenance stages are the largest, accounting for about 95% of the entire life cycle, and the influence of power consumption during use is large, so it can be said that energy-saving performance during use is a very important factor. Please note that the usage and maintenance stage may not be the same as the customer's terms of use because general conditions have been set and evaluated.
- In calculating CFP, we use our data for the amount of raw materials used, but since it is difficult to collect data at the time of manufacturing thousands of parts, we use general data at the time of manufacturing raw materials. Therefore, it may not reflect the unique characteristics of this product.

#### 5. Assumptions of secondary data used

IDEA V2.1.3 , complemented by CO2 Emissions Intensity v1.10.

#### 6. Remarks

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- 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/>)
- The CFP only addresses the single impact category of climate change and does not assess other potential social, economic and environmental impacts arising from the provision of a product.

Registration number : JR-BF-22003C