Statement CN23/00003101

Product Carbon Footprint Verification Statement

The Product Carbon Footprint study of
1 Rechargeable Li-ion Battery, Model HP HT03XL HSTNN-DB9D, Specification 3440mA
which is conducted by

Dynapack Electronic Technology (Suzhou) Co., Ltd.

No.8, Huagang Road, Wujiang Economic and Technological Development Zone, Suzhou City, Jiangsu Province, P.R, China

has been verified meeting the requirements of

ISO 14067:2018

The carbon footprint of 1 Rechargeable Li-ion Battery, Model HP HT03XL HSTNN-DB9D, Specification 3440mA is
3.24 Kilogram of CO_2 e

For the life cycle stages of product:
Cradle to Gate

Authorized by
David Xin
Sr. Director - Knowledge
Date: 14 June 2023

SGS-CSTC Standards Technical Services Co., Ltd.
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SGS-CSTC Standards Technical Services Co., Ltd. (hereinafter referred to as "SGS") has been commissioned by Dynapack Electronic Technology (Suzhou) Co., Ltd. (hereinafter referred to as "Dynapack"), No.8, Huagang Road, Wujiang Economic and Technological Development Zone, Suzhou City, Jiangsu Province, P.R, China, for the verification the life cycle Greenhouse Gas emissions of product as provided by Dynapack in accordance with

ISO 14067:2018

Roles and responsibilities

Dynapack is responsible for the management of its GHG information system, the development and maintenance of records and reporting procedures in accordance with that system, including the calculation and determination of the life cycle GHG emissions of product information and the reported life cycle GHG emissions of product.

It is SGS's responsibility to express an independent GHG verification opinion on the life cycle GHG emissions of 1 Rechargeable Li-ion Battery, Model HP HT03XL HSTNN-DB9D, Specification 3440mA.

SGS conducted a third-party verification of the provided GHG assertion against the principles of ISO 14067:2018, ISO 14040:2006 and ISO 14044:2006 in the period from 26-27 May., 2023. The verification was based on the verification scope, objectives and criteria as agreed between Dynapack Electronic Technology (Suzhou) Co., Ltd. and SGS.

Level of Assurance

The level of assurance agreed is that of reasonable assurance.

Scope

Dynapack has commissioned an independent verification by SGS of reported the life cycle GHG emissions of product of 1 Rechargeable Li-ion Battery, Model HP HT03XL HSTNN-DB9D, Specification 3440mA arising from the manufacture of Dynapack product activities, to establish conformance with ISO 14067:2018 principles within the scope of the verification as outlined below.

This engagement covers verification of emission from partial life cycle of the product of greenhouse gases included within the organization's boundary and is based on ISO 14067:2018.

- Title or description activities: GHG verification of the life cycle GHG emissions of 1 Rechargeable Li-ion Battery, Model HP HT03XL HSTNN-DB9D, Specification 3440mA.
- Product Category Rule: there was not relevant PCR can be considered.
- Functional unit: 1 Rechargeable Li-ion Battery, Model HP HT03XL HSTNN-DB9D, Specification 3440mA.
- System boundary: Covers a "Cradle to Gate" assessment of the life cycle emissions, from raw material extraction to production completion. The system boundary be clearly defined in accordance with ISO 14040:2006, ISO 14044:2006 and ISO 14067:2018.
- Use phase: Excluded in system boundary
- Retail locations: Excluded in system boundary
- Disposal phase: Excluded in system boundary
- Data resources: The primary data collection from manufacture and own operation phase. The secondary data collection from Ecoinvent 3.8 and ELCD.
- Life cycle assessment tool and index using:
  - Software applied SimaPro 9 version.
  - IPCC 2021 GWP values are applied in this inventory.
- Cut-off rules: The flow is less than 1% of the cumulative mass of the model it be excluded, providing its environmental relevance is not a concern, a minimum 97% of the total mass for the system is captured.
- Allocation rules:
  - Multi-output: The allocations are based on the changes in the resource consumption and pollutant emissions following the changes in the studied system's output product, or function or economical relationship.
  - Multi-input: The allocation is based on actual relationship. For example, the manufacturing process's consumption may be affected by the change in recycled resource input.
- Manufacturing locations: No.8, Huagang Road, Wujiang Economic and Technological Development Zone, Suzhou City, Jiangsu Province, P.R, China
- Emissions and removal of the product system included: please refer to the CFP study reported provided by Dynapack Electronic Technology (Suzhou) Co., Ltd.: (Dynapack Product Carbon Footprint Research Report - Rechargeable Li-ion Battery – V4-20230612).
- Types of GHGs included: CO_2, CH_4, N_2O, Substances controlled by the Montreal Protocol, HFCs, PFCs, Fluorinated ethers, Perfluoropolyether, Hydrocarbons compounds.
- Mitigation: There is no GHG emissions offsetting used at any point in the life cycle of the product.

- GHG information for the following production period was verified: 1 Jan. 2022 to 31 Dec. 2022, emissions covered the particular period.
- Intended user of the verification statement: Private

Objective

The purposes of this verification are, by review of objective evidence, to independently review:

- Whether the life cycle GHG emissions and removals of product are as declared by the organization's CFP study report;
- The data reported are accurate, complete, consistent, transparent and free of material error or omission.

Criteria

Criteria against which the verification assessment is undertaken are the principles of ISO 14067:2018.

The IPCC 2021 AR6 GWP values are applied in this assessment of life cycle GHG emissions for the product.

Materiality

The materiality required of the verification was considered by SGS to 5%, based on the needs of the intended user of the GHG Assertion.

Conclusion

Dynapack Electronic Technology (Suzhou) Co., Ltd. provided the GHG assertion based on the requirements of ISO 14067:2018. The life cycle GHG information of product for the production period form 1 Jan. 2022 to 31 Dec. 2022 disclosing emissions of 3.24 Kilogram of CO_2 equivalent, covering a Cradle to Gate system boundary, are verified by SGS to a reasonable level of assurance, consistent with the agreed verification scope, objectives and criteria.

The life cycle GHG emissions of 1 Rechargeable Li-ion Battery, Model HP HT03XL HSTNN-DB9D, Specification 3440mA are described as below:

Life Cycle Phase	GHG Emissions	Unit
Raw material acquire	2.86	kg CO_2e
Raw material transport	0.10	kg CO_2e
Manufacture phase	0.25	kg CO_2e
Product transport	0.03	kg CO_2e
Total	3.24	kg CO_2e

SGS's approach is risk-based, drawing on an understanding of the risks associated with reporting the life cycle GHG emissions of product information and the controls in place to

mitigate these. Our examination includes assessment, on a test basis, of evidence relevant to the amounts and disclosures in relation to the organization's reported the life cycle GHG emissions of product.

We planned and performed our work to obtain the information, explanations and evidence that we considered necessary to provide a reasonable level of assurance that the life cycle GHG emissions of 1 Rechargeable Li-ion Battery, Model HP HT03XL HSTNN-DB9D, Specification 3440mA.

We conducted our verification with regard to the GHG assertion of Dynapack Electronic Technology (Suzhou) Co., Ltd. which included assessment of GHG information system, monitoring and reporting plan/protocol. This assessment included the collection of evidence supporting the reported data, and checking whether the provisions of the protocol reference, were consistently and appropriately applied

In SGS's opinion the presented GHG assertion

- is materially correct and is a fair representation of the GHG data and information, and
- is prepared in accordance with ISO 14067:2018 on GHG quantification, monitoring and reporting.

This statement shall be interpreted with the CFP study report of Jiangsu Dynapack Product Carbon Footprint Research Report - Rechargeable Li-ion Battery –V4-20230612 and this result shall be valid for a maximum period of two years.

声明书编号 CN23/00003101

产品碳足迹核查声明书

产品碳足迹研究：

1 个可充电锂电池，型号 HP HT03XL HSTNN-DB9D，规格 3440mA

由以下公司开展：

顺达电子科技（苏州）有限公司

中国江苏省苏州市吴江经济技术开发区花港路 8 号

经核查符合

ISO 14067:2018

1 个可充电锂电池，型号 HP HT03XL HSTNN-DB9D，规格 3440mA 的碳足迹为 3.24 kg CO_2 eq.

被核查产品的生命周期阶段为

摇篮到大门

签署

David Xin

Sr. Director - Knowledge

日期：2023 年 06 月 14 日

通标标准技术服务有限公司
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通标标准技术服务有限公司（以下简称 SGS），经与顺达电子科技（苏州）有限公司（以下简称顺达，中国江苏省苏州市吴江经济技术开发区花港路 8 号）达成双边协议，依据 ISO14067:2018 的要求执行产品生命周期温室气体排放量的核查，确认符合以下标准要求

ISO 14067:2018

角色和职责

顺达负责产品温室气体信息系统的管理，确保开发和维护的记录、报告流程符合该系统，包括产品生命周期内温室气体排放信息评价和报告确认。

SGS 负责出具本次核查产品"1 个可充电锂电池，型号 HP HT03XL HSTNN-DB9D，规格 3440mA"的温室气体排放量核查意见。

SGS 于（2023 年 05 月 26-27 日）期间依据 ISO 14067:2018、ISO 14040:2006 和 ISO 14044:2006 相关准则对责任方提供的产品温室气体报告进行了第三方核查。核查是基于顺达电子科技（苏州）有限公司与 SGS 商定的核查范围、目标和准则。

保证等级

商定的保证等级为合理保证。

适用范围

顺达委托 SGS 进行一次独立核查，以确保责任方所报告的"1 个可充电锂电池，型号 HP HT03XL HSTNN-DB9D，规格 3440mA"的生命周期温室气体排放评价与 ISO14067:2018 相关标准要求的符合性，提出保证声明的涵盖内容如下：

这一协议覆盖组织边界内产品生命周期温室气体排放的核查，且协议基于ISO14067:2018

- 标题或活动描述："1 个可充电锂电池，型号 HP HT03XL HSTNN-DB9D，规格 3440mA"生命周期温室气体排放核查
- 产品类别规则：无相关 PCR 可以参考
- 功能单位：1 个可充电锂电池，型号 HP HT03XL HSTNN-DB9D，规格 3440mA
- 系统边界："被核查产品的生命周期阶段从"摇篮到大门"的系统边界，涵盖了从自然资源开采开始到产品生产阶段为止的生命周期阶段。系统边界按照 ISO 14067:2018、ISO 14040:2006 和 ISO 14044:2006 规范明确界定。
- 使用阶段：不包括在系统边界内
- 销售地点：不包括在系统边界内
- 废弃处置：不包括在系统边界内
- 数据资源：初级活动数据来源于制造和现场生产阶段的数据收集；次级活动数据来自 Ecoinvent 3.8 和 ELCD
- 生命周期评价工具和方法：
  - 使用 SimaPro 9 版本软件进行产品碳足迹的计算

- 评价方法学应用 IPCC 2021 GWP 值
- 取舍准则：基于产品投入的比例，舍去质量/能量投入小于 1%的材料/能量投入，但总的材料/能量舍去比例不超过 3%
- 分配原则：
  - 多重输出：基于资源消耗及污染排放的变化，依照研究系统的产品输出、功能、或经济关系等来分配
  - 多重输入：基于实际关系的分配。例如，制造过程中的排放，可能会受到废物流输入变化影响
- 制造地点：中国江苏省苏州市吴江经济技术开发区花港路 8 号
- 产品系统的温室气体排放和清除包括：请参考顺达电子科技（苏州）有限公司公司提供的产品碳足迹研究报告：（顺达-产品碳足迹研究报告-电池模组—V4-20230613）
- 评价所包括的温室气体类型有：CO_2、CH_4、N_2O 以及蒙特利尔议定书中控制的其他温室气体，如 HFCs、PFCs、氟化醚、全氟聚醚，以及其他碳氢化合物
- 缓解措施：在产品生命周期的任何时间点都不使用温室气体排放抵消
- 核查的产品生产阶段为：2022 年 01 月 1 日-2022 年 12 月 31 日
- 核查声明的预期使用者：私人

目标

本次核查目的是通过客观证据审查：

- 产品生命周期温室气体排放和清除是否如组织的碳足迹研究报告所述；
- 所报告的数据是准确的、完整的、一致的、透明的和没有实质错误或遗漏。

准则

核查依据的准则为 ISO 14067:2018.

实质性

基于产品温室气体声明的预期使用者的需要，本次核查的实质性定为 5%。

结论

顺达电子科技（苏州）有限公司依据 ISO 14067:2018 要求提出产品温室气体核查声明。SGS 以客观公正的立场，评价在（2022 年 01 月 01 日-2022 年 12 月 31 日）期间产品生产的温室气体排放水平，1 个可充电锂电池，型号 HP HT03XL HSTNN-DB9D，规格 3440mA 的温室气体排放量如下，经 SGS 核查达到合理保证等级，与商定的核查范围、目标和准则一致。

1 个可充电锂电池，型号 HP HT03XL HSTNN-DB9D，规格 3440mA 各生命周期阶段温室气体排放描述如下：

生命周期阶段	温室气体排放量	单位
原材料获取阶段	2.86	kg CO_2 eq.
原材料运输阶段	0.10	kg CO_2 eq.
生产阶段	0.25	kg CO_2 eq.
产品运输阶段	0.03	kg CO_2 eq.

合计	3.24	kg CO_2 eq.

SGS 采用风险评估方法为基础，理解所报告的温室气体信息相关的风险并加以控制，从而减轻风险。我们的检查包括评估与组织产品的生命周期温室气体排放相关数量证据和报告披露。

SGS 计划并执行相关工作来获取必要的信息、解释和证据，以提供合理保证等级，确保能公正地陈述责任方的 1 个可充电锂电池，型号 HP HT03XL HSTNN-DB9D，规格 3440mA。

SGS 所提供的关于顺达电子科技（苏州）有限公司的产品温室气体查证，包括对温室气体排放信息系统进行评价、监控和报告计划或协议。这次评价包括收集用以支持所报告数据的证据，以及检查所参考的协议条款是否被一致和适当地应用。

SGS 认为责任方报告的产品温室气体报告

- 是实质性准确的，且为产品温室气体排放数据和信息的真实展现，及
- 是依据 ISO 14067:2018 的要求对产品温室气体进行量化、监控和报告

本核查声明书有效期为两年，此声明必须与顺达电子科技（苏州）有限公司的产品碳足迹研究报告（顺达-产品碳足迹研究报告-电池模组—V4-20230612）作为一个整体进行解释说明。