

## Lithium ion battery test summary

LITHIUM CELL OR BATTERY TEST SUMMARY  
IN ACCORDANCE WITH SUB-SECTION 38.3  
OF UN MANUAL OF TESTS AND CRITERIA

| Battery Manufacturer   |  |
|--|--|
| Techtronic Industries (Dongguan) Co., Ltd.<br>No. 2 Hujing Road, Houjie Town,<br>Dongguan City, Guangdong Province,<br>China | E-Mail: <a href="mailto:untestreport@ttigroup.com">untestreport@ttigroup.com</a><br>Phone: 86-0769-82723180<br>Webpage: <a href="http://www.ttigroup.com">www.ttigroup.com</a> |

| Product Manufacturer  |  |
|---|--|
| Alfred Kärcher SE & Co. KG<br>Alfred-Kärcher-Straße 28 - 40<br>71364 Winnenden<br>Germany | E-Mail: <a href="mailto:info@kaercher.com">info@kaercher.com</a><br>Phone: +49 7195 14-0<br>Webpage: <a href="https://www.kaercher.com">https://www.kaercher.com</a> |

"**Battery Power 18/25 DW**" lithium ion battery has been successfully tested and comply with UN Model Regulation, Manual of Test and Criteria, Part III subsection 38.3

| Performed Tests |    |                        | Results |
|-----------------|----|------------------------|---------|
| 38.3.4.1        | T1 | Altitude Simulation    | Pass    |
| 38.3.4.2        | T2 | Thermal Test           | Pass    |
| 38.3.4.3        | T3 | Vibration              | Pass    |
| 38.3.4.4        | T4 | Shock                  | Pass    |
| 38.3.4.5        | T5 | External Short Circuit | Pass    |
| 38.3.4.6        | T6 | Impact / Crush         | Pass    |
| 38.3.4.7        | T7 | Overcharge             | Pass    |
| 38.3.4.8        | T8 | Forced Discharge       | Pass    |

The UN38.3 tests were performed by the following test house and were tested to UN Manual Test and Criteria Revision 6 Amendment 1 or subsequent revisions or amendments.

| Laboratory Information   |  |
|--|--|
| Vkan Certification & Testing Cp., Ltd.<br>No. 3, Tiantaiyi Road, Kaitai Avenue,<br>Science City, Guangzhou P. R. China | E-Mail: office@cvc.org.cn<br>Phone: 86-020-32293888<br>Webpage: www.cvc.org.cn |


| Description of cell or battery |                     |                               |                     |           |                    |                  |
|--------------------------------|---------------------|-------------------------------|---------------------|-----------|--------------------|------------------|
| Model number                   | Type                | Physical Description          | Battery weight (kg) | Wh rating | Test report number | Test report date |
| 6.447-036.0<br>18V             | Lithium ion battery | <b>Battery Power 18/25 DW</b> | 0.48                | 45        | RZUN2019-3174      | 2019.10.11       |

| Assembled battery testing requirements   |                |
|--|----------------|
| Reference to assembled battery testing requirements (i.e. 38.3.3 (f) and 38.3.3 (g)) | Not Applicable |

## Signature of responsible persons of the Company

16.12.2019  
Date

  
Steffen Reiser,  
Director Regulatory Affairs & Certification

  
Dr. Jan Becker,  
Manager Energy Storage Systems