



LITHIUM BATTERIES TEST SUMMARY

IN ACCORDANCE WITH SUB-SECTION 38.3 OF UN MANUAL OF TESTS AND CRITERIA


| | | |
|---|----------------------|--|
| 1 | Product Manufacturer | Makita Corporation 3-11-8, Sumiyoshi-cho, Anjo, Aichi, 446-8502, Japan Phone : +81 (0)566-98-1711 www.makita.com |
| 2 | Model | Detachable Lithium-ion Batteries – Rechargeable Makita Type : BL Separable Lithium-ion Batteries – Rechargeable Makita Type : PDC Integral Lithium-ion Batteries – Rechargeable for Makita Cordless Cleaner Integral Lithium-ion Batteries – Rechargeable for Makita Cordless Screwdriver For detailed list of models see product test information table |
| 3 | Voltage rating | 3.6V / 7.2V / 10.8V (12Vmax.) / 14.4V / 18V / 36V (40Vmax.) / 57.6V (64Vmax) |
| 4 | Ah rating | 1.3Ah / 1.5Ah / 2.0Ah / 2.5Ah / 3.0Ah / 4.0Ah / 5.0Ah / 6.0Ah / 33.5Ah |
| 5 | Wh rating | 5.4Wh / 10.8Wh / 14.0Wh / 16.2Wh / 17.0Wh / 22.0Wh / 27.0Wh / 28.08Wh / 35.1Wh / 36.0Wh / 44.0Wh / 54.0Wh / 58.0Wh / 72.0Wh / 80.0Wh / 87.0Wh / 90.0Wh / 94.0Wh / 108.0Wh / 144.0Wh / 180.0Wh / 230.2Wh / 288.0Wh / 1206Wh |

List of Tests Conducted and Results

| PERFORMED TESTS | | RESULTS |
|-----------------|------------------------|---------|
| 38.3.4.1 T1 | Altitude Simulation | Passed |
| 38.3.4.2 T2 | Thermal Test | Passed |
| 38.3.4.3 T3 | Vibration | Passed |
| 38.3.4.4 T4 | Shock | Passed |
| 38.3.4.5 T5 | External Short Circuit | Passed |
| 38.3.4.7 T7 | Overcharge | Passed |

(Note that tests T6 and T8 are not applicable to batteries.)



| | |
|--|---|
| Revision Date: 2021-11-19 | Revision Number: 3.0 |
| RESEARCH & DEVELOPMENT PLANNING DEPARTMENT GENERAL MANAGER Yoshihisa Inuzuka | Signature  |

The UN 38.3 tests were performed by one of the following test houses and were tested to UN Manual Test and Criteria Revision 3 Amendment 1 or subsequent revisions or amendments.

| | |
|---|---|
| <p>Tohoku Murata Manufacturing Co., Ltd. 1-1 Shimosugishita, Takakura, Hiwada-machi, Koriyama-shi, Fukushima, 963-0531 Japan Phone: +81-24-955-7770 e-mail: tmm-qa-compliance@murata.com Website: https://www.murata.com/en-global/group/tohokumurata</p> | <p>Samsung SDI Co., Ltd 467, Beonyeong-ro, Seobuk-gu, Cheonan-si, Chungcheongnam-do, Korea Phone: +82-41-560-3114 e-mail: lian55.kim@samsung.com Website: http://samsungsdi.co.kr</p> |
| <p>CQC Intime Testing Technology Co.,Ltd. East Taihu Technology and Finance City, No.1368 Wuzhong Dadao Rd., Wuzhong Economic Development Zone, Suzhou, Jiangsu. Phone: 0512-66303623 e-mail: cqc_jszlb@126.com Website: http://www.cqc-it.com</p> | <p>Celxpert(Kunshan) Energy Co.Ltd NO.1111,Hanpu Road,Yushan Town,Kunshan City,Jiangsu Province,P.R.China Phone: +86-0512-57775999-8239 e-mail: Frank_Gao@cn.celxpert.com Website: http://www.celxpert.com.tw</p> |
| <p>Murata Energy Device Wuxi Co., Ltd. No.27 Changjiang Road, New District,Wuxi,Jiangsu Province, 214028 P.R.C. Phone: +86-510-8523-9120 e-mail: mdw-qa-comp@murata.com Website: https://www.murata.com/en-global/group/tohokumurata</p> | <p>Shanghai Research Institute of Chemical Industry Testing Center No.345 East Yunling Road, Putuo, Shanghai,China Phone: +86-21-3176555 e-mail: battery@ghs.cn Website: http://www.ghs.cn</p> |
| <p>HCT CO.,LTD. 74, Seoicheon-ro 578beon-gil, Majang- myeon, Icheon-si, Gyeonggi-do, 17383 KOREA Phone:031-645-6300 e-mail:E_safety@hct.co.kr Website: http://www.hct.co.kr/</p> | |



Description of Battery and Test Information

| Model numbers | Physical Description | Battery weight (kg) | Wh rating | Test report number | Test report date | Applicable UN Numbers acc. to UN Model Regulations |
|---|---|---------------------|-----------|--|----------------------------|--|
| BL0715 7.2V 1.5 Ah | Detachable cluster lithium-ion accumulator | 0.12 | 10.8 | QA-7349 | 10-Oct-2017 | UN3480/ UN3481 |
| BL1013/BL1014 10.8V/12Vmax. 1.3Ah | Detachable cluster lithium-ion accumulator | 0.17 | 14.0 | QA-7332 QA-7357 | 4-Oct-2017 20-Oct-2017 | UN3480/ UN3481 |
| BL1013/BL1014 10.8V/12Vmax. 1.3Ah | Detachable slide in lithium-ion accumulator | 0.18 | 14.0 | MT0038801 | 4-Mar-2011 | UN3480/ UN3481 |
| BL1015/BL1016 10.8V/12Vmax. 1.5Ah | Detachable slide in lithium-ion accumulator | 0.25 | 17.0 | CPK-QA-Lab- UN383PACK1402 CPK-Lab- UN383PACK15060 | 16-Aug-2014 16-Aug-2015 | UN3480/ UN3481 |
| BL1015/BL1016 10.8V/12Vmax. 1.5Ah | Detachable slide in lithium-ion accumulator | 0.21 | 16.2 | CPK-Lab- UN383PACK21053-A CPK-Lab- UN383PACK21054-A | 05-Aug-2021 07-Aug-2021 | UN3480/ UN3481 |
| BL1021B 12Vmax. 2.0Ah | Detachable slide in lithium-ion accumulator | 0.24 | 22.0 | CPK-QA-Lab- UN383PACK15063 | 20-Aug-2015 | UN3480/ UN3481 |
| BL1040B/BL1041B 10.8V/12Vmax. 4.0Ah | Detachable slide in lithium-ion accumulator | 0.43 | 44.0 | CPK-Lab- UN383PACK14042 CPK-QA-Lab- UN383PACK15062 | 23-Dec-2014 23-Aug-2015 | UN3480/ UN3481 |
| BL1415N 14.4V 1.5Ah | Detachable slide in lithium-ion accumulator | 0.32 | 22.0 | SDI-UN-131101-02 | 17-Dec-2017 | UN3480/ UN3481 |
| BL1415NA 14.4V 1.5Ah | Detachable slide in lithium-ion accumulator | 0.40 | 21.6 | MT0045738 | 15-Jul-2011 | UN3480/ UN3481 |
| BL1430B 14.4V 3.0Ah | Detachable slide in lithium-ion accumulator | 0.50 | 44.0 | SDI-UN-P160118-01 | 18-Jan-2016 | UN3480/ UN348 |
| BL1440 14.4V 4.0Ah | Detachable slide in lithium-ion accumulator | 0.53 | 58.0 | QA-7358 | 20-Oct-2017 | UN3480/ UN3481 |
| BL1450 14.4V 5.0Ah | Detachable slide in lithium-ion accumulator | 0.51 | 72.0 | SDI-UN-P140807-01 | 11-Aug-2014 | UN3480/ UN348 |



| | | | | | | |
|---------------------------|---|------|-------|--------------------------------------|--------------|-------------------|
| BL1460A 14.4V 6.0Ah | Detachable slide in lithium-ion accumulator | 0.54 | 87.0 | CPK-QA-Lab- UN383PACK15061 | 12-June-2015 | UN3480/ UN3481 |
| BL1460B 14.4V 6.0Ah | Detachable slide in lithium-ion accumulator | 0.54 | 87.0 | CPK-QA-Lab- UN383PACK15027 | 12-June-2015 | UN3480/ UN3481 |
| BL1415G 14.4V 1.5Ah | Detachable slide in lithium-ion accumulator | 0.33 | 22.0 | CPK-QA-Lab- UN383PACK16008 | 01-Mar-2016 | UN3480/ UN3481 |
| BL1415G 14.4V 1.5Ah | Detachable slide in lithium-ion accumulator | 0.32 | 22.0 | CPK-QA-Lab- UN383PACK21006-A | 22-Mar-2021 | UN3480/ UN3481 |
| BL1420G 14.4V 2.0Ah | Detachable slide in lithium-ion accumulator | 0.33 | 28.08 | CPK-Lab- UN383PACK21007- A-1-1 | 23-Mar-2021 | UN3480/ UN3481 |
| BL1815N 18V 1.5Ah | Detachable slide in lithium-ion accumulator | 0.36 | 27.0 | MT0059172 | 15-Feb-2012 | UN3480/ UN3481 |
| BL1815N 18V 1.5Ah | Detachable slide in lithium-ion accumulator | 0.36 | 27.0 | CPK-QA-Lab- UN383PACK13025 | 13-Oct-2013 | UN3480/ UN3481 |
| BL1820B 18V 2.0Ah | Detachable slide in lithium-ion accumulator | 0.38 | 36.0 | QA-7337 | 5-Oct-2017 | UN3480/ UN3481 |
| BL1830B 18V 3.0Ah | Detachable slide in lithium-ion accumulator | 0.64 | 54.0 | QA-7344 | 5-Oct-2017 | UN3480/ UN3481 |
| BL1830B 18V 3.0Ah | Detachable slide in lithium-ion accumulator | 0.60 | 54.0 | SDI-UN-P160314-01 | 14-Mar-2016 | UN3480/ UN3481 |
| BL1840B 18V 4.0Ah | Detachable slide in lithium-ion accumulator | 0.65 | 72.0 | QA-7285 | 1-Sep-2017 | UN3480/ UN3481 |
| BL1840B 18V 4.0Ah | Detachable slide in lithium-ion accumulator | 0.60 | 72.0 | SDI-UN-P150209-01 | 10-Feb-2015 | UN3480/ UN3481 |
| BL1850B 18V 5.0Ah | Detachable slide in lithium-ion accumulator | 0.64 | 90.0 | QA-7286 | 1-Sep-2017 | UN3480/ UN3481 |
| BL1850B 18V 5.0Ah | Detachable slide in lithium-ion accumulator | 0.62 | 90.0 | SDI-UN-P160104-01 | 4-Jan-2016 | UN3480/ UN3481 |



| | | | | | | |
|--|---|-------|-------|--|-------------|-------------------|
| BL1860B 18V 6.0Ah | Detachable slide in lithium-ion accumulator | 0.67 | 108.0 | 2017126J17835 | 7-Dec-2017 | UN3480/ UN3481 |
| BL1815G 18V 1.5Ah | Detachable slide in lithium-ion accumulator | 0.39 | 27.0 | CPK-QA-Lab- UN383PACK16012 | 23-Mar-2016 | UN3480/ UN3481 |
| BL1815G 18V 1.5Ah | Detachable slide in lithium-ion accumulator | 0.38 | 27.0 | CPK-Lab- UN383PACK21003-A | 03-Mar-2021 | UN3480/ UN3481 |
| BL1820G 18V 2.0Ah | Detachable slide in lithium-ion accumulator | 0.39 | 35.1 | CPK-Lab- UN383PACK21004- A-1-1-1-1-1 | 09-Mar-2021 | UN3480/ UN3481 |
| BL3626 36V 2.6Ah | Detachable slide in lithium-ion accumulator | 1.34 | 94.0 | QA-7346 | 6-Oct-2017 | UN3480/ UN3481 |
| BL3622A 36V 2.2Ah | Detachable slide in lithium-ion accumulator | 1.33 | 80.0 | QA-7348 | 6-Oct-2017 | UN3480/ UN3481 |
| Integral Batteries for DF001D | Integral lithium- ion accumulator | 0.13 | 5.4 | CPK-QA-Lab- UN383PACK16026 | 26-Dec-2016 | UN3480/ UN3481 |
| Integral Batteries for CL105D / CL110D | Integral lithium- ion accumulator | 0.18 | 14.0 | CPK-QA-Lab- UN383PACK13028- K092-1-1 | 18-May-2014 | UN3480/ UN3481 |
| Integral Batteries for CL104D / CL111D | Integral lithium- ion accumulator | 0.18 | 17.0 | CPK-QA-Lab- UN383PACK16022-1- 1-1-1 | 27-Feb-2018 | UN3480/ UN3481 |
| BL1020V 10.8V/12Vmax. 2.0Ah | Integral lithium- ion accumulator | 0.185 | 22.0 | CPK-Lab- UN383PACK20004-A | 21-Feb-2020 | UN3480/ UN3481 |
| BL4025 40Vmax. 2.5Ah | Detachable slide in lithium-ion accumulator | 0.70 | 90.0 | MDW-B19090 | 12-Sep-2019 | UN3480/ UN3481 |
| BL4040 40Vmax. 4.0Ah | Detachable slide in lithium-ion accumulator | 1.04 | 144.0 | 1119040200 | 20-May-2019 | UN3480/ UN3481 |
| BL4020 40Vmax. 2.0Ah | Detachable slide in lithium-ion accumulator | 0.68 | 72.0 | 1120010340 | 27-Feb-2020 | UN3480/ UN3481 |
| BL4050F 40Vmax. 5.0Ah | Detachable slide in lithium-ion accumulator | 1.31 | 180.0 | 1120050246 | 28-Jun-2020 | UN3480/ UN3481 |



| | | | | | | |
|-----------------------------|---|------|-------|-------------------|-------------|-------------------|
| BL4080F 40Vmax. 8.0Ah | Detachable slide in lithium-ion accumulator | 1.90 | 288.0 | 1121030246 | 16-Apr-2021 | UN3480/ UN3481 |
| PDC1200 36V 33.5Ah | Separable lithium-ion accumulator | 8.80 | 1206 | HCT-BA-2002-RE016 | 13-Feb-2020 | UN3480/ UN3481 |
| BL6440 57.6V 4.0Ah | Separable lithium-ion accumulator | 2.20 | 230.2 | 1120090534 | 28-Sep-2020 | UN3480/ UN3481 |