



## LITHIUM BATTERIES TEST SUMMARY

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

<b>1</b>	<b>Product manufacturer</b>	C. & E. Fein GmbH Hans-Fein-Str. 81 73529 Schwäbisch Gmünd-Bargau Germany  Phone: +49 (0)7173 183-0 Fax: +49 (0)7173 183-800 E-Mail: info@fein.de Webpage: www.fein.com
<b>2</b>	<b>Model</b>	Battery Pack GBA 18V
<b>3</b>	<b>Voltage rating</b>	18 V
<b>4</b>	<b>Ah rating</b>	2.0 Ah / 4.0 Ah / 5.0 Ah / 8.0 Ah / 12 Ah
<b>5</b>	<b>Wh rating</b>	36.0 Wh / 72.0 Wh / 90.0 Wh / 144.0 Wh / 216.0 Wh

These models of Lithium ion batteries have been successfully tested and comply with the UN Model Regulations, Manual of Test and Criteria, Part III, subsection 38.3

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: 2023-02-08**

**Revision number: 2.0**

i. V. Dr. M. Hergesell  
Director of Product Development

i. V. S. Böhm  
Director of Quality Management



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.

Test laboratory	Test laboratory
Robert Bosch Power Tools GmbH PT/EST Max-Lang Str. 40-46 70771 Leinfelden-Echterdingen Germany +49 (0)711-400-40990 kontakt@bosch.de www.bosch-pt.com	Tüv Süd PSB Pte. Ltd No.1 Science Park Drive Singapore 118221 Singapore +65 6427 4700 Info.sg@tuvsud.com www.tuev-sued.de/company/locations/asia
SGS Germany GmbH Hofmannstr. 50 81379 München Germany +49 (0) 89 1250 406 4513 sgs.germany@sgs.com www.sgsgroup.de	SLG Prüf und Zertifizierungs GmbH Burgstädter Str. 20 09232 Hartmannsdorf Germany +49 (0) 3722 73230 service@slg.de.com www.slg.de.com
SAMSUNG SDI CO LTD 467 BEONYEONG-RO SEOBUK-GU CHEONAN-SI, CHUNGCHEONGNAM-DO 31086 KOREA +82-41-560-3114 sdimaster@samsung.com www.samsungsdi.com	VDE Prüf und Zertifizierungsinstitut GmbH Goethering 43 63067 Offenbach / Main Germany +49 (0) 69 8306-0 vde-institut@vde.com www.vde.com
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**LITHIUM CELLS OR BATTERIES TEST SUMMARY  
IN ACCORDANCE WITH SUB-SECTION 38.3 OF UN MANUAL OF TESTS AND CRITERIA**

Product Test Information

<b>Model numbers</b>	<b>Physical description</b>	<b>Battery weight (kg)</b>	<b>Wh rating</b>	<b>Test report number</b>	<b>Test report date</b>	<b>Applicable UN numbers acc. to UN Model Regulations</b>	<b>Delivered at max. 30% state of charge</b>
GBA 18V 2.0 Ah BAT612 B20V20	Detachable slide in lithium-ion accumulator	0,338 0,346	36.0	CRSSFTY/00001(AD1)/20 CRSSFTY/00013/20	29.05.2020 31.07.2020	UN3480/ UN3481	Yes
GBA 18V 4.0 Ah	Detachable slide in lithium-ion accumulator	0,593 0,600 0,530 0,533	72.0	CRSSFTY/00016/20 CRSSFTY/00018/20 H2021-40451-BESS-1-Rev.1 CPSFTY/00018/21	09.10.2020 09.12.2020 30.08.2021 09.09.2021	UN3480/ UN3481	Yes
GBA 18V 5.0 Ah	Detachable slide in lithium-ion accumulator	0,600 0,607	90.0	CRSSFTY/00005/21 CPSFTY/00015/21	30.03.2016 24.06.2019	UN3480/ UN3481	Yes
GBA 18V 8.0 Ah	Detachable slide in lithium-ion accumulator	0,990 0,986	144.0	259732-TL7-2 28247959 002	14.03.2019 26.03.2019	UN3480/ UN3481	Yes
GBA 18V 12.0 Ah	Detachable slide in lithium-ion accumulator	1,380 1,370	216.0	259043-TL7-1 CRSSFTY/00007/21	12.02.2019 08.03.2021	UN3480/ UN3481	Yes

All lithium batteries and cells shown in before-mentioned table were designed and manufactured in accordance with Section 2.9.4 of the UN Recommendations on the Transport of Dangerous Goods.

Lithium Battery Test Summary is based on the lithium test summary of Bosch with revision date 22.04.2021 and revision number 6.0.