

Battery Health Report

Battery type/serial no	Li-ion 10INR19/66-2 BL21 36V 6.8Ah 244.8Wh/ serial no: C3102N0010312
Brand/producer	TranzX BL21/JD Europe Components Gmbh Salinenstrasse 52 61231 Bad Neuheim Germany
Charger	TranzX 36V Lithium Battery Charger. Model DZL(M)3710A0. Input: 100-240V~, 1.8A(Max)50/60Hz. Output: 42.0V 2.0A. XLR 5pin male cable connector. Red LED: charging. Green LED: charge-full or disconnected.
Cells used	Estimate(pack intact and unopened): 20 cells - 2cells/string. Cells: LG MJ1 - 3500mAh - 10A cont disch. INR chemistry.
Nickel bars/spot welds condition	Not checked, pack not opened
Internal wiring condition	Not checked, pack not opened
Charge port voltage @ full charge	36.524V @ fully charged (terminal 1+5) XLR 5pin female
Charge port voltage @ discharged	22.597V @ discharged (terminal 1+5) XLR 5pin female
Charge port condition	No corrosion or mechanical damage observed (XLR 5pin female)
Discharge port voltage @ full charge	41.789V @ fully charged
Discharge port voltage @ discharged	13.859V @ discharged
Discharge port condition	No corrosion or mechanical damage observed (4 pin female)
Voltage LED indicator	OK (5 green switched LEDs light up when charged)
Discharge Fuse	Regular ATO, open blade-type car fuse, 30A rating (green)
Charge Fuse	NA
Lock/Key	NA
String display cell balance check	Not performed - pack intact and unopened
Internal resistance, measured	176-198 m OHM +/- 0.5% @AC 1KHz (four wire measurement, Fnrirs HRM-10)
Discharge capacity, 1 st test	6.6028 Ah (nominal capacity 6.8Ah) SOH=97.1%
Discharge capacity, 2 nd test	6.5504 Ah (nominal capacity 6.8Ah) SOH=96.3%
Charge time	9.32-12.40 or 3h 8min
Discharge time	1.27-2.57 or 1h 30min
Coulomb power meter utilised	Atorch DT20HBW relay switched WIFI controlled Coulomb power meter
DMM utilised	UNI-T UT117C
<p>Narrative: The pack was received including charger foremost for a check of condition and capacity. The pack was fully charged using the charger provided. The pack was then discharged using a Grin Tech load Bank with three different loads. Only low (app 2.5A) and medium load (5A) were utilised for longer periods of time. High load (app 10 A) was utilised only for one short period of time and resulted in a load of 10.476A (30A fuse). State of Health, SOH of a battery is determined as: capacity/nominal capacity x 100% = 6.6028/6.8x100%=97.1% capacity/nominal capacity x 100% = 6.5504/6.8x100%=96.3% A State Of Health, SOH of 97.1% indicates minimal degradation, a pack still in peak condition and very close to its original state. A State Of Health of 96.3% indicates a well maintained pack with minimal aging.</p>	

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E-bike battery repair. CyclingMac are certified CYTECH level 3 and e-bike mechanics.