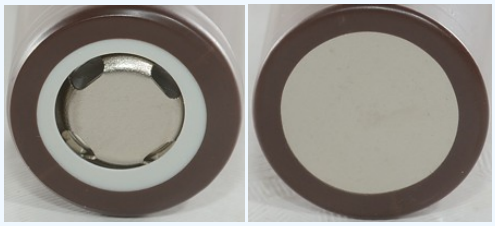
# LG 18650 HG2 3000mAh (Brown)

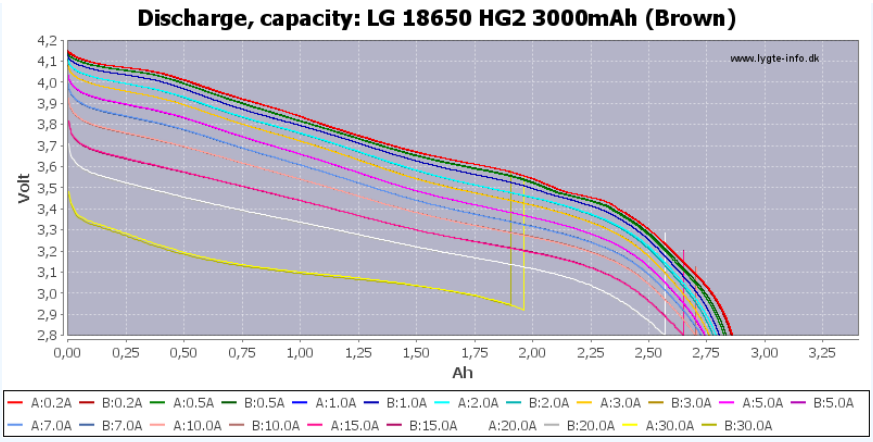

Official specifications:

- Nominal Capacity: 3000mAh
- Nominal voltage: 3.50V
- Standard charge: 1500mA, 4.2V, 50mA
- Max. charge voltage: 4.20V+/-0.05V
- Max. charge current: 4000mA
- Standard discharge: 600mA down to 2.5V
- Fast discharge: 10000mA, 20000mA down to 2.5V
- Max. continuous discharge: 20000mA
- Cycle life: 300 at 10A, 200 at 20A both with 4A charge, ramaning capacity minimum 70%
- Weight: 47.0g
- Operating temperature: charge 0°C ~ 50°C, discharge: -20°C ~ 75°C
- Storage temperature: 1 month: -20°C ~60°C, 3 month: -20°C ~ 45°C, 1 year: -20°C ~ 20°C

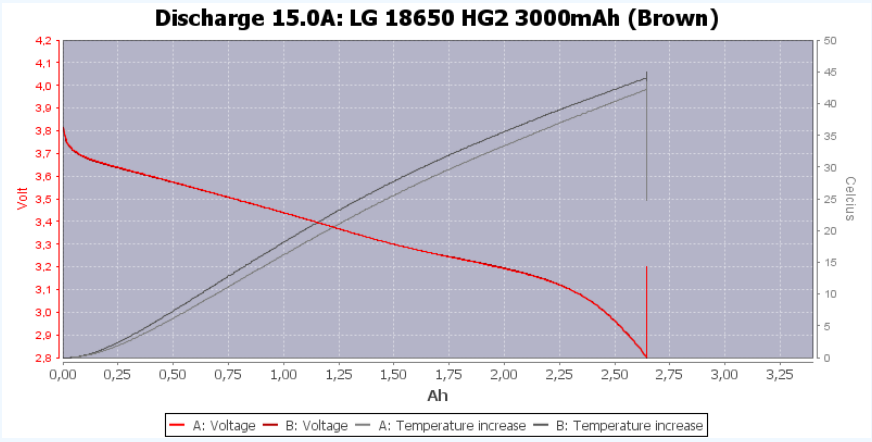
| **Name** | **LG 18650 HG2 3000mAh (Brown)** | | | | | |
|---|---|---|---|---|---|---|
| **Cell** | LGDBHG21865 | | | | | |
| **Supplier** | eu.nkon.nl | | | | Date: | 10-2016 |
| **Size** | Weight: | **45.1 g** | Length: | **65 mm** | Diameter: | **18.3 mm** |
| **Info** | Top: | **flat** | Bottom: | **metal** | Rated A: | **20** |
| **Test condition** | Charge voltage: | | 4,2 | Termination current: | | 0,1 |
| **Test current (A)** | 0,2 | 0,5 | 1 | 2 | 3 | 5 |
| **Measured capacity (Ah)** | 2,858 | 2,829 | 2,804 | 2,784 | 2,761 | 2,743 |
| **Measured energy (Wh)** | 10,499 | 10,363 | 10,221 | 10,052 | 9,883 | 9,676 |
| **PCB protection trip current (A)** | **NA** | | | | | |
| **Calculated internal resistance (ohm)** | **0,05** | | | | | |

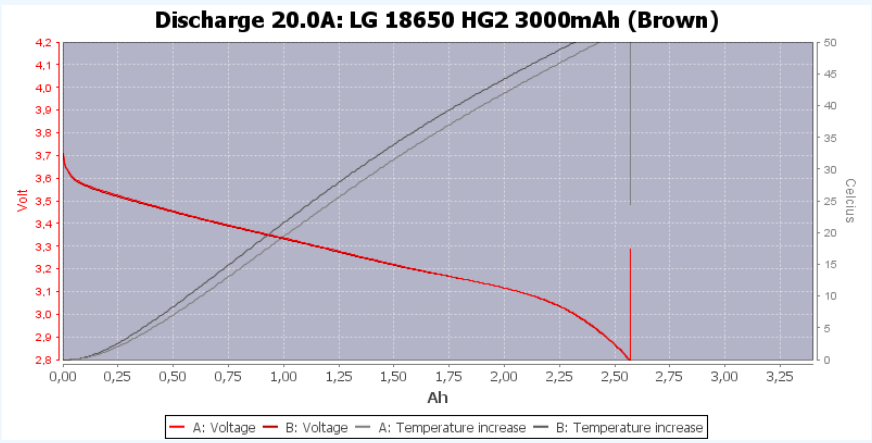
A high current and high capacity cell, that is rated for high current use.



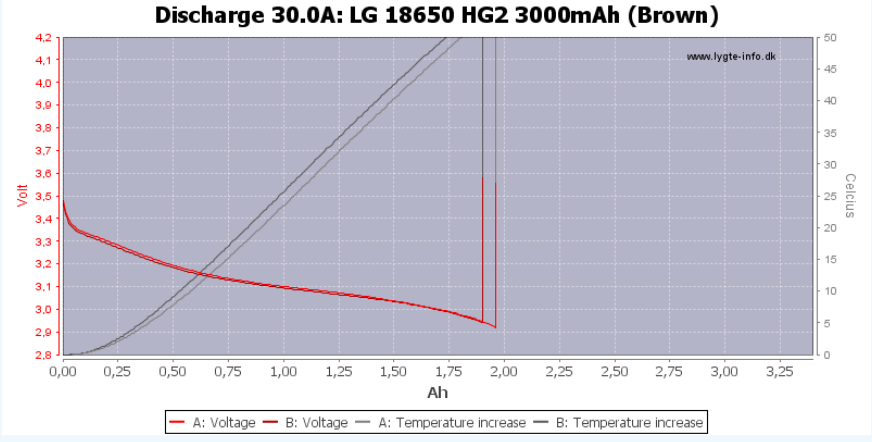



The discharge curves tracks perfectly.



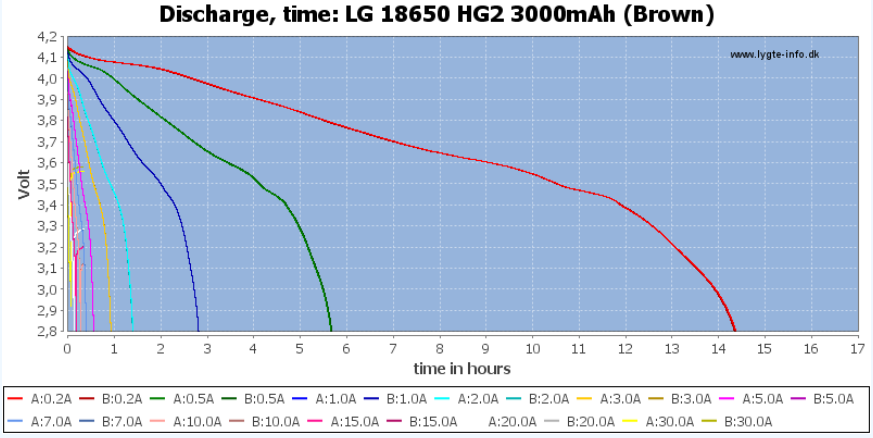




At 20A the cell reaches 81°C, but first after discharge has terminated.




At 30A I terminated due to temperature, but the cell do reach 90°C after termination.

## Discharge, time: LG 18650 HG2 3000mAh (Brown)

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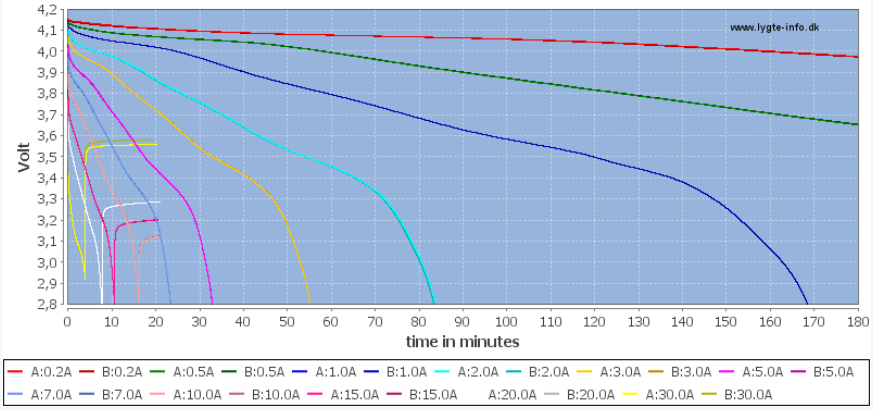
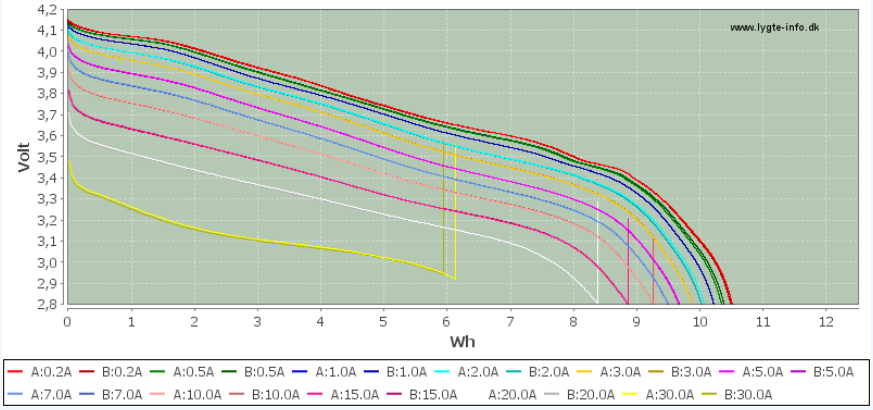
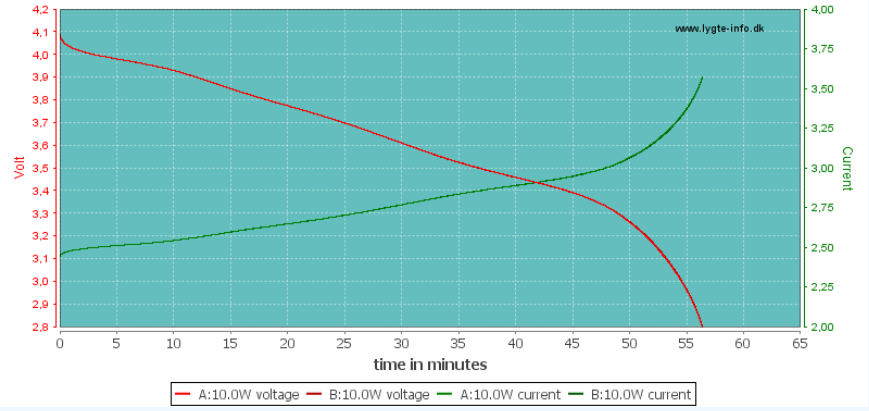
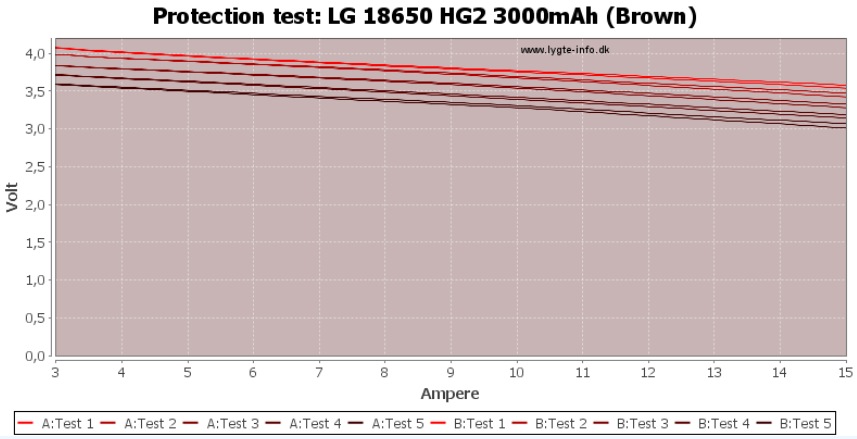


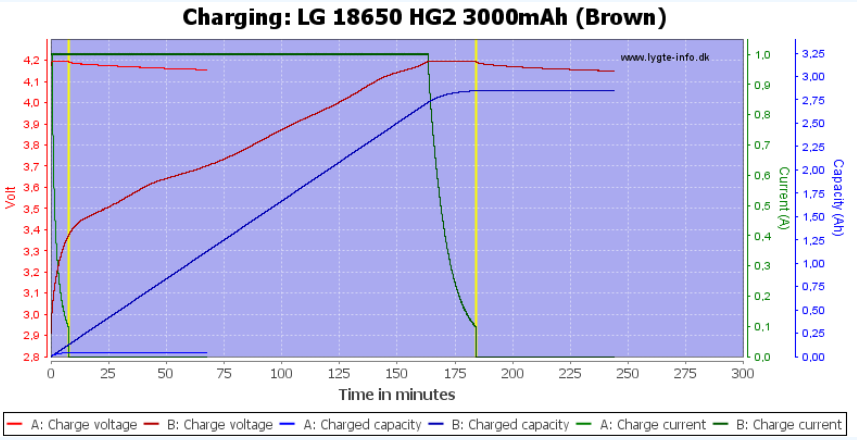

## Discharge, energy: LG 18650 HG2 3000mAh (Brown)




## Discharge, power: LG 18650 HG2 3000mAh (Brown)






Ignore the A charge curve, there was a glitch on my equipment.

## Conclusion

This is a very good high current cell and it is rated to be used at high charge/discharge rates.

## Notes and links

How is the test done and how to read the charts
How is a protected LiIon battery constructed
More about button top and flat top batteries
Compare to 18650 and other batteries