

## Data File

```
PartnerID = "UTwente"  
instrument = "R&S NGU401"  
fixture = "4-terminal Kelvin fixture with L-shaped copper busbars"  
manufacturer = "Brand1"  
NomValueCap (F) = 60  
NuofSamp = 2  
temperature (°C) = 65 ±1  
IRC (A) = 5.7  
IRM (A) = 39  
  
Ren (ohm) = 0.00784  
Rch_dis (ohm) = 0.00770  
Rch_sd (ohm) = 0.00837  
Cdis (F) = 61.29  
Cen (F) = 61.58  
Pmax (W) = 232.53  
ΔW (Wh) = 0.09020 stored energy  
η = 0.98265  
ncycles = 0k  
notes = "NGU401 FastLog had a small systematic current offset as observed in the raw data"
```

## Parameters and Diagrams

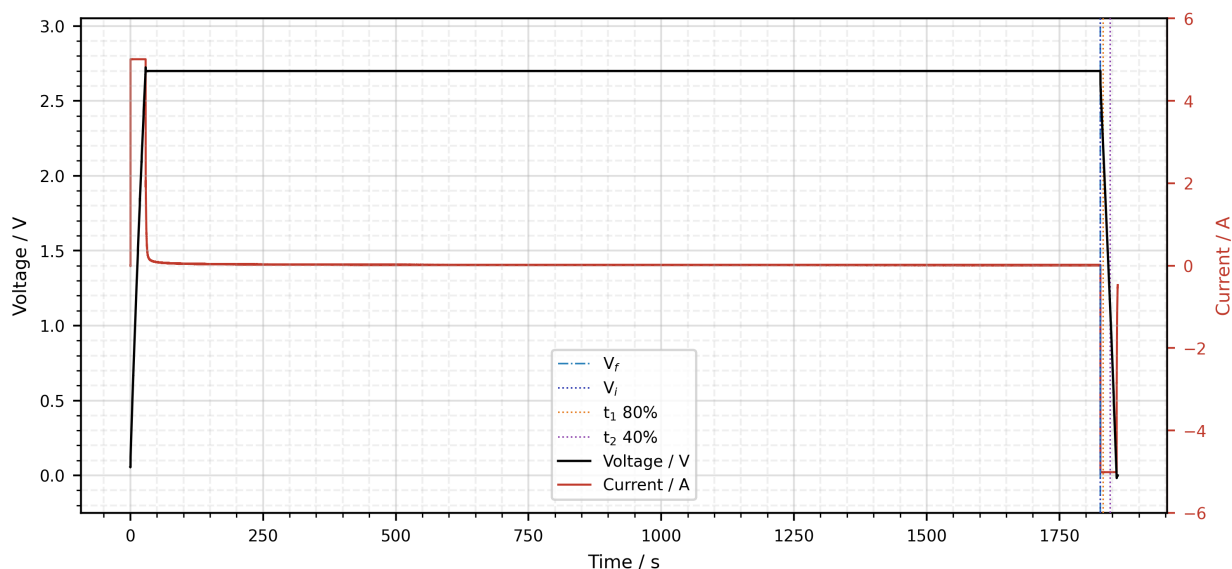


Figure 1. Constant Current-Constant Voltage-Discharge Method (CCCVDM) — Brand1 60F SC2, 65C, I = 5.0 A

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ESR voltage drop values  
initial voltage Vi (V) = 2.699380    t = 1827.319 s  
final voltage Vf (V) = 2.660192    t = 1827.321 s  
Cdis computation values  
initial time 80% (s) = 1832.87000  
initial voltage 80% (V) = 2.15943  
final time 40% (s) = 1846.10500  
final voltage 40% (V) = 1.07975
```

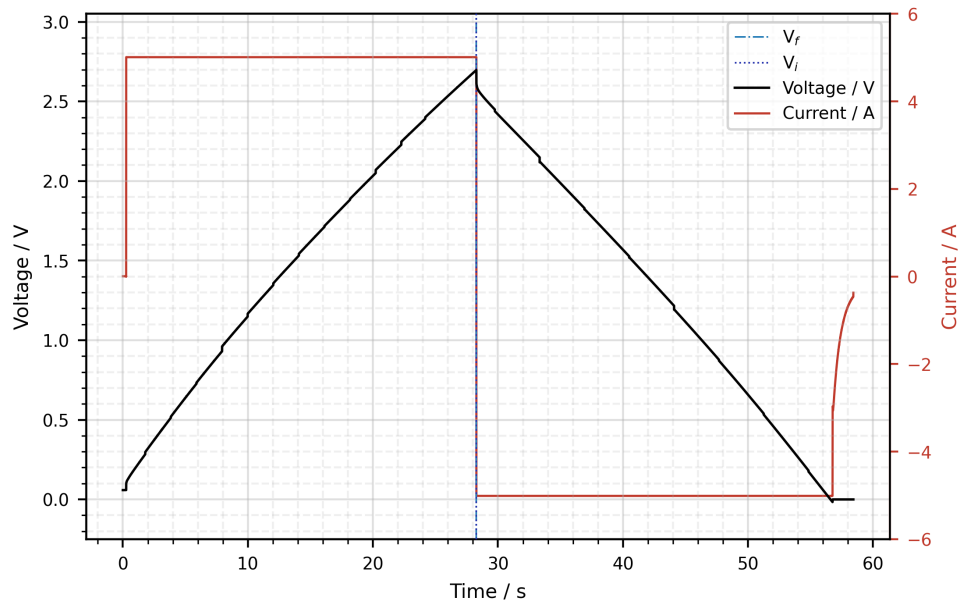


Figure 2. Charge Discharge Method (CDM) — Brand1 60F SC2, 65C,  $I = 5.0\text{ A}$

ESR voltage drop values

initial voltage  $V_i$  (V) = 2.697192  $t = 28.274\text{ s}$

final voltage  $V_f$  (V) = 2.620169  $t = 28.276\text{ s}$

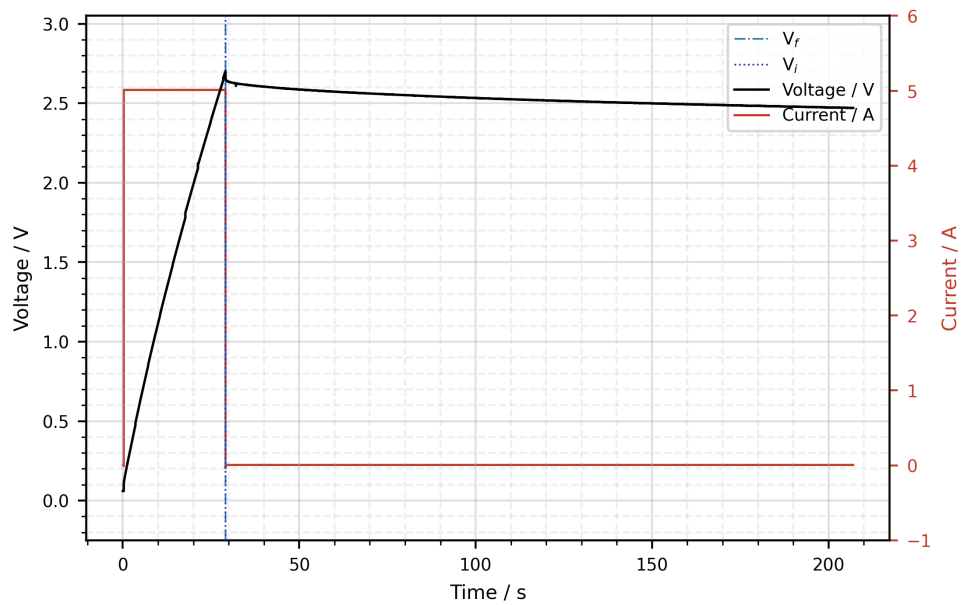


Figure 3. Charge Self-Discharge Method (CSDM) — Brand1 60F SC2, 65C,  $I = 5.0\text{ A}$

ESR voltage drop values

initial voltage  $V_i$  (V) = 2.703413  $t = 29.110\text{ s}$

final voltage  $V_f$  (V) = 2.661579  $t = 29.115\text{ s}$