Analyse of ALB001022061304 MODBUS data

Jan Zdeněk 25.7.2023

ALB001022061304 – 1305s impulse on Phase1 – start and end

Date: 24.7.2023

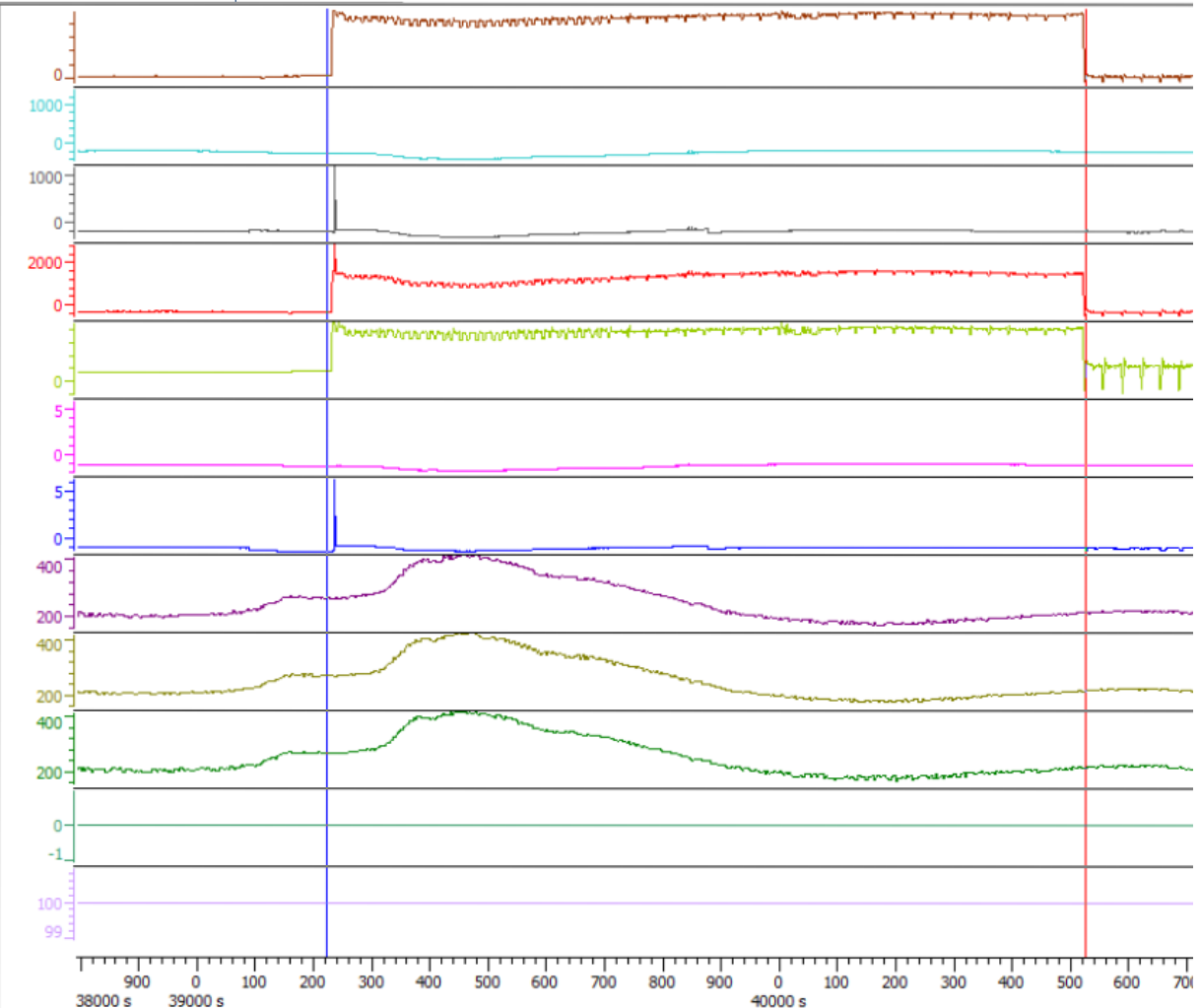| Name	y	dy
GRID_Active_power_Phase_L1 [W]	71	7
GRID_Active_power_Phase_L2 [W]	-255	52
GRID_Active_power_Phase_L3 [W]	-180	30
GRID_Total_Active_power [W]	-364	89
GRID_Current_Phase_L1 [A]	1.6	1.2
GRID_Current_Phase_L2 [A]	-1.3	0.2
GRID_Current_Phase_L3 [A]	-1.5	0.1
INV_Power_Phase_L1 [W]	269	-52
INV_Power_Phase_L2 [W]	272	-53
INV_Power_Phase_L3 [W]	269	-53
WR_SSR_0_Voltage [V]		
WR_SSR_1_Voltage [V]		
WR_SSR_2_Voltage [V]		
WR_SSR_3_Voltage [V]		
WR_SSR_4_Voltage		
WR_SSR_5_Voltage [V]		
BAT_Power [W]	0	0
BAT_SOC [%]	100	0

Battery SOC 100%

Inverter works symmetricaly

Why is consumption from grid on inverter after impulse ???
Battery is on 100% SOC

1305s 1,7kW
impulse on Phase1

t0=39221.475607313s
t1=40526.549053938s
dt=1305.073446625s

Marker Bar

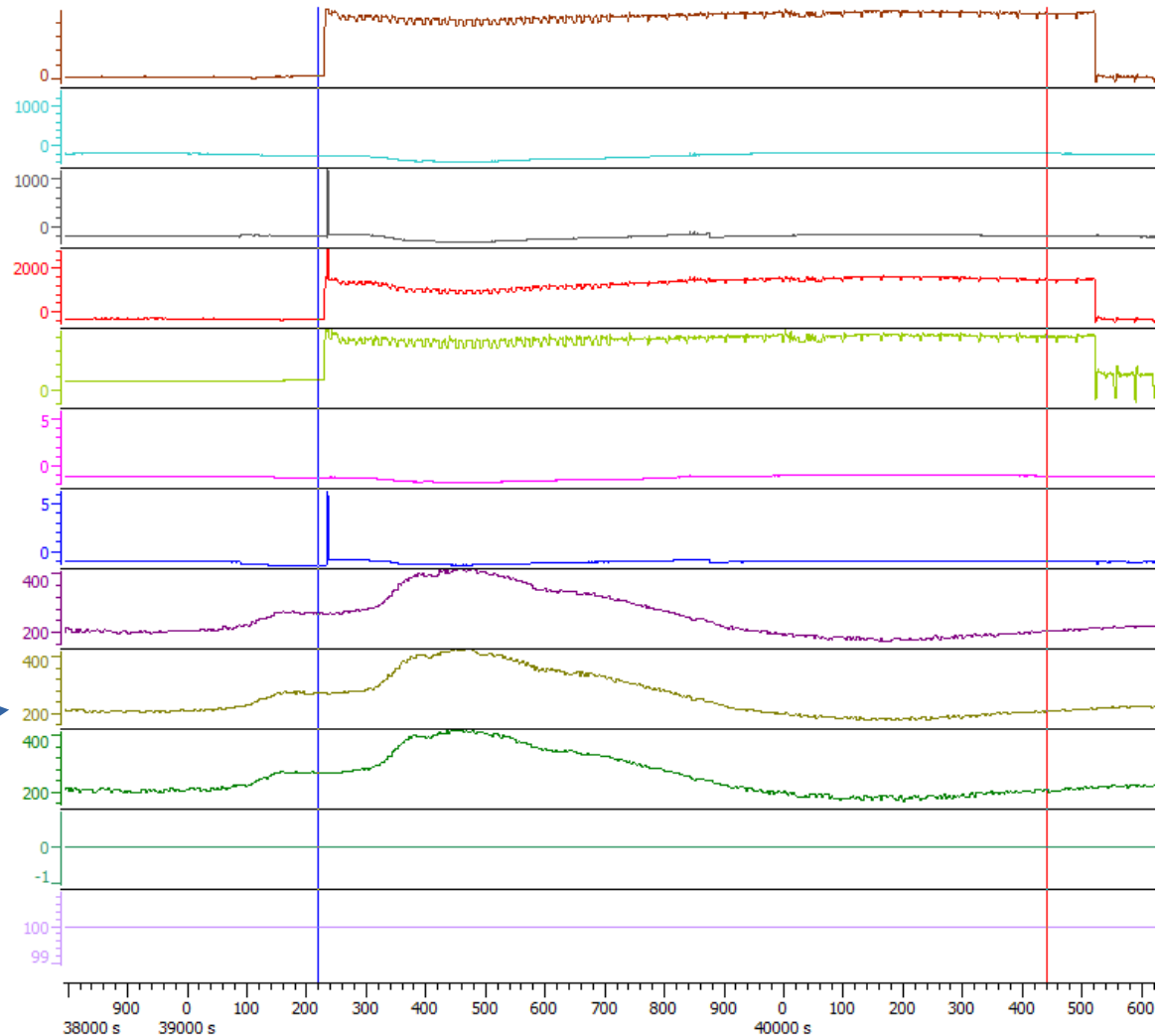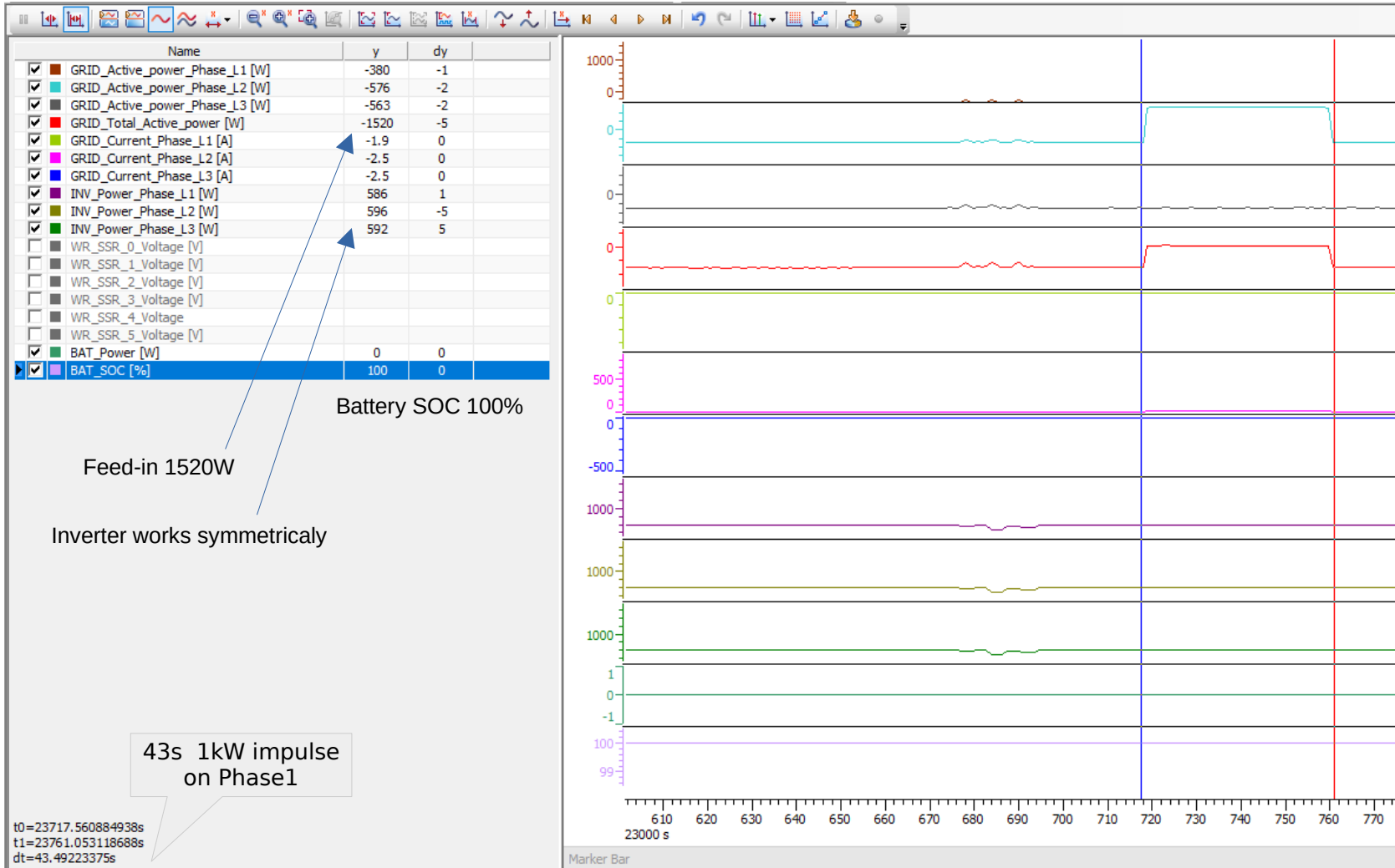# ALB001022061304 – 1305s impulse on Phase1 - on impulse

Date: 24.7.2023

Battery SOC 100%

Grid consumption after 1222s
constant 1,7kw impulse

Why? Battery is on 100% SOC

Inverter works symmetrically

Why?

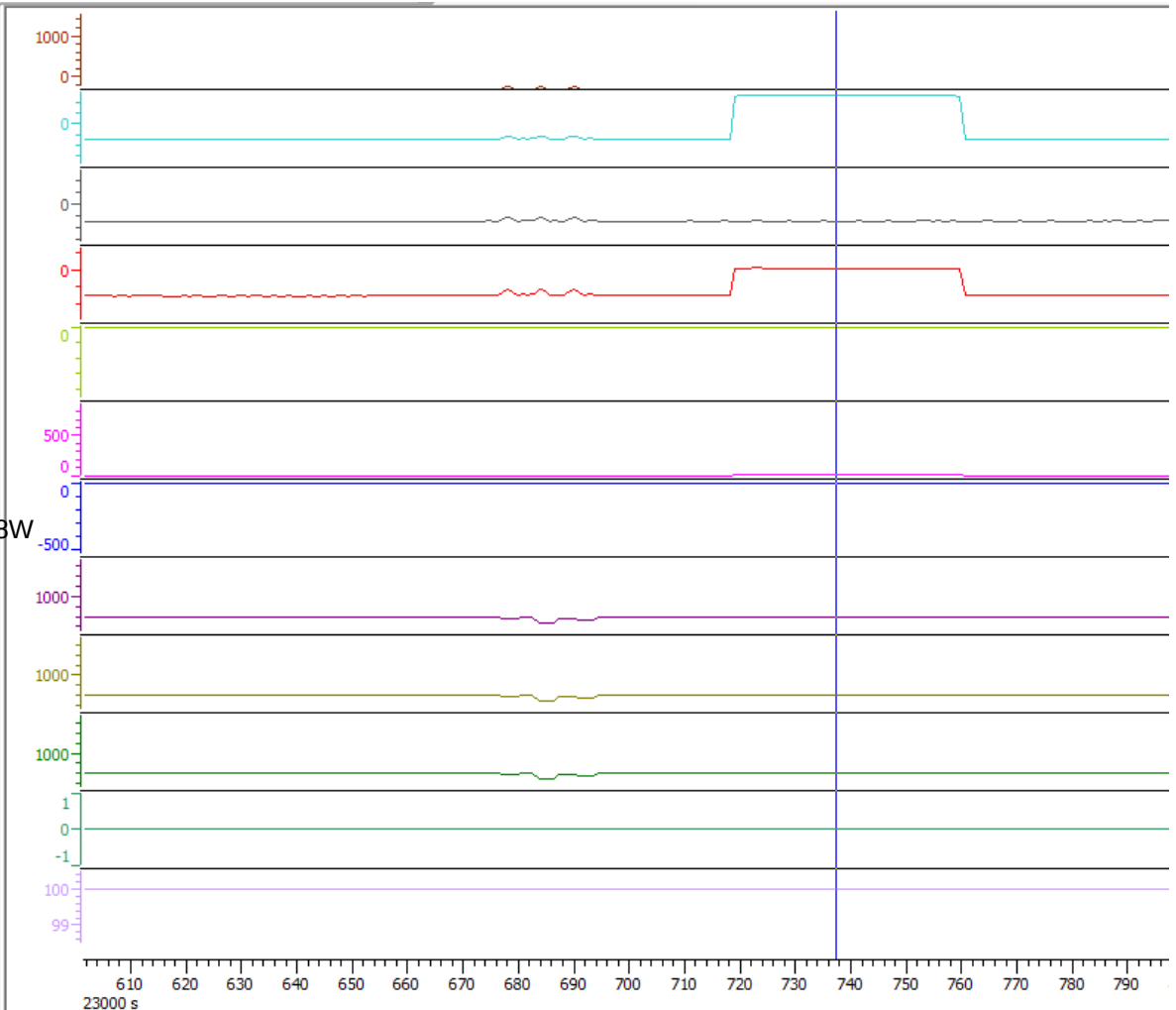ALB001022061304 – 43s impulse on Phase2 – start and end

Date: 24.7.2023

ALB001022061304 – 43s impulse on Phase2 – on impulse

Date: 24.7.2023

Name	y
☑ ■ GRID_Active_power_Phase_L1 [W]	-383
☑ ■ GRID_Active_power_Phase_L2 [W]	1038
☑ ■ GRID_Active_power_Phase_L3 [W]	-565
☑ ■ GRID_Total_Active_power [W]	89
☑ ■ GRID_Current_Phase_L1 [A]	-1.9
☑ ■ GRID_Current_Phase_L2 [A]	4.4
☑ ■ GRID_Current_Phase_L3 [A]	-2.5
☑ ■ INV_Power_Phase_L1 [W]	588
☑ ■ INV_Power_Phase_L2 [W]	587
☑ ■ INV_Power_Phase_L3 [W]	596
☐ ■ WR_SSR_0_Voltage [V]	
☐ ■ WR_SSR_1_Voltage [V]	
☐ ■ WR_SSR_2_Voltage [V]	
☐ ■ WR_SSR_3_Voltage [V]	
☐ ■ WR_SSR_4_Voltage	
☐ ■ WR_SSR_5_Voltage [V]	
☑ ■ BAT_Power [W]	0
▶ ☑ ■ BAT_SOC [%]	100

Feed-in 948W

*Grid consumption 1038W

Inverter works symmetricaly

*In the Czech Republic it means 1038W from Grid. Not 89W (GRID Total power)

Time
t=23737.273954063s

Marker Bar

Conclusion

* The inverter operates largely in symmetrical mode after Battery SOC 100%. It seems to be a bug in firmware.

* It doesn't use discharging of battery in some cases.

* Displayed data in the Alpha ESS application is not valid for users in the Czech Republic