



# Schneider XW Pro, KiloVault Integration Guide

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## Introduction

This guide covers the recommended set-up and configuration of the Schneider Electric Conext XW Pro Solar Hybrid Inverter/Charger 120/240V using the Conext System Control Panel. We'll only be covering battery related settings. In case you are using the Schneider Conext Gateway, these same settings are available there as well.

You can download the XWPro Owner's guide here:

- [https://solar.schneider-electric.com/download/xw-pro-iec-user-documentation/?ind=13254&filename=ML202003\\_Conext-XW-Pro-NA-Owners-Guide-990-91227A-01.pdf&wpdmdl=10331&refresh=609d81c0eb90b1620935104](https://solar.schneider-electric.com/download/xw-pro-iec-user-documentation/?ind=13254&filename=ML202003_Conext-XW-Pro-NA-Owners-Guide-990-91227A-01.pdf&wpdmdl=10331&refresh=609d81c0eb90b1620935104)

You can download the XWPro Installation guide here:

- [https://solar.schneider-electric.com/download/xw-pro-iec-user-documentation/?ind=media-10991&filename=ML202007\\_XW-PRO-NA-Installation-Guide990-91228A-01\\_rev-A.pdf&wpdmdl=10331&refresh=609d81c0eba181620935104](https://solar.schneider-electric.com/download/xw-pro-iec-user-documentation/?ind=media-10991&filename=ML202007_XW-PRO-NA-Installation-Guide990-91228A-01_rev-A.pdf&wpdmdl=10331&refresh=609d81c0eba181620935104)

In that guide, document number 975-0801-01-02, you can find an SCP menu map for both Basic and Advanced Settings, Figure 22. The menu map is also reproduced on the last page of this document.

**CAUTION:** If you update the firmware in your Schneider Electric equipment, ALL the settings must be reverified. The programmed settings shown in the following tables must be applied based on desired Warranty/Cycle life. We recommend an 80% depth of discharge for our Lithium Iron Phosphate (LiFePO4 or LFP) batteries and a 50% depth of discharge for our PLC battery.

### Notes on the XW

- As of this writing, the XW Pro's High Battery Cut Out (a.k.a. high voltage disconnect) cannot be set lower than 58V. This has been suggested to Schneider as a firmware update. No release date yet for the update.
- As of this writing, the Schneider Conext Gateway, InsightHome/Facility, and the InsightCloud app provide easier and greater control and monitoring of the XW Pro than is available through the Conext System Control Panel (SCP). There are no updates planned for the SCP.
  - An XWPro cannot be commissioned with the SCP. Too many settings are not available.
- When using the SCP, the XW Pro Advanced Settings are accessed by...
  - Selecting the XW Pro on the Select Device menu
  - Press and release the **Enter** and **Up Arrow** and **Down Arrow** simultaneously. It may take a few tries to do this.
  - After performing this keypress, **Advanced Settings** appears at the top of the XW Pro Setup menu.
  - If you press and release **Enter & Up Arrow & Down Arrow** simultaneously again then **Basic Settings** will appear at the *bottom* of the Setup Menu.
- Put the XW Plus into Standby Mode before changing any basic or advanced settings.
- Put the XW Plus into Operating Mode after changing the settings to save the changes.



# 1800 & 3600 HLX & CHLX

## Basic Settings

Setting Name	1800 Setting	3600 Setting
Batt Type	Gel, but this will be overridden in Advanced Settings	
Batt Capacity	150Ah per HLX in Parallel	300Ah per HLX in Parallel
Max Chg Rate	Set to a percentage of 140A (the XW Pro's Max) so that when added to the solar charge controller amperage, the sum is 100A (per HLX in parallel)	
Charge Cycle	2 Stage No Float	
Recharge Volts (for 80% DoD)	51.0V	
Low Batt Cut Out	48.0V	

## Advanced Settings

Setting Name	1800 Setting	3600 Setting
Inverter / Low Batt Cut Out	48.0V	
Inverter / LBCO Delay	5 seconds	
Inverter / LBCO Hysteresis	0.5V	
Inverter / High Batt Cut Out	57.6V	
Charger / Batt Capacity	150Ah per battery in parallel	300Ah per battery in parallel
Charger / Max Chg Rate	Set to a percentage of 140A so that when added to the solar charge controller amperage, the sum is 100A (per HLX in parallel)	
Charger / Charge Cycle	2-Stage	
Charger / Default Batt Temp	Warm (the default)	
Charger / Recharge Volts (for 80% DoD)	51.0V	
Charger / Absorb Time	2 minutes or less	
Charger / Batt Type	Custom	
Charger / Custom / Eqz Support	Disabled	
Charger / Custom / Eqz Voltage	N/A	
Charger / Custom / Bulk Voltage	56.4V	
Charger / Custom / Bulk Termination Voltage	55.6V (required to be at least .8V below Bulk)	
Charger / Custom / Absorb Voltage	56.4V	
Charger / Custom / Float Voltage	N/A	
Charger / Custom / Batt Temp Comp	0 mV / °C	

## Notes



## HAB 7.5kWh

### Basic Settings

Setting Name	Setting Value
Batt Type	Gel, but will be overridden by Advanced Settings
Batt Capacity	150Ah per HAB in parallel
Max Chg Rate	Set to a percentage of 140A so that when added to the solar charge controller amperage, the sum is 120A (per HAB in parallel)
Charge Cycle	2 Stage
Recharge Volts for 80% DoD	51.4V
Low Batt Cut Out	48.2V

### Advanced Settings

Setting Name	Setting Value
Inverter / Low Batt Cut Out	48V
Inverter / LBCO Delay	3 seconds
Inverter / LBCO Hysteresis	2V
Inverter / High Batt Cut Out	57V
Charger / Battery Type	Custom
Charger / Batt Capacity	150Ah per HAB in parallel
Charger / Max Charge Rate	Set to a percentage of 140A so that when added to the solar charge controller amperage, the sum is 120A (per HAB in parallel)
Charger / Charge Cycle	2 Stage
Charger / Default Batt Temp	Warm
Charger / Recharge Volts for 80% DoD	51.4V
Charger / Absorb Time	2 minutes or less
Charger / Custom / Eqlz Support	Disabled
Charger / Custom / Eqlz Voltage	N/A
Charger / Custom / Bulk Voltage	56.2V
Charger / Custom / Bulk Termination Voltage	55.4V (required to be at least .8V below Bulk)
Charger / Custom / Absorb Voltage	56.2V
Charger / Custom / Float Voltage	N/A (If necessary, 52.8V)
Charger / Custom / Batt Temp Comp	0 mV / °C

### Notes



# 2100 PLC

## Basic Settings

Setting Name	Setting Value
Battery Type	AGM (overridden by custom settings)
Battery Capacity	180Ah per 2100 PLC in parallel
Max Charge Rate	Set to a percentage of 140A so that when added to the solar charge controller amperage, the sum is 100A (per PLC in parallel)
Charge Cycle	3 stage without a solar charge controller 2 stage with a solar charge controller
Recharge Volts for 50% DoD	48.4V
Low Battery Cutout	48V

## Advanced Settings

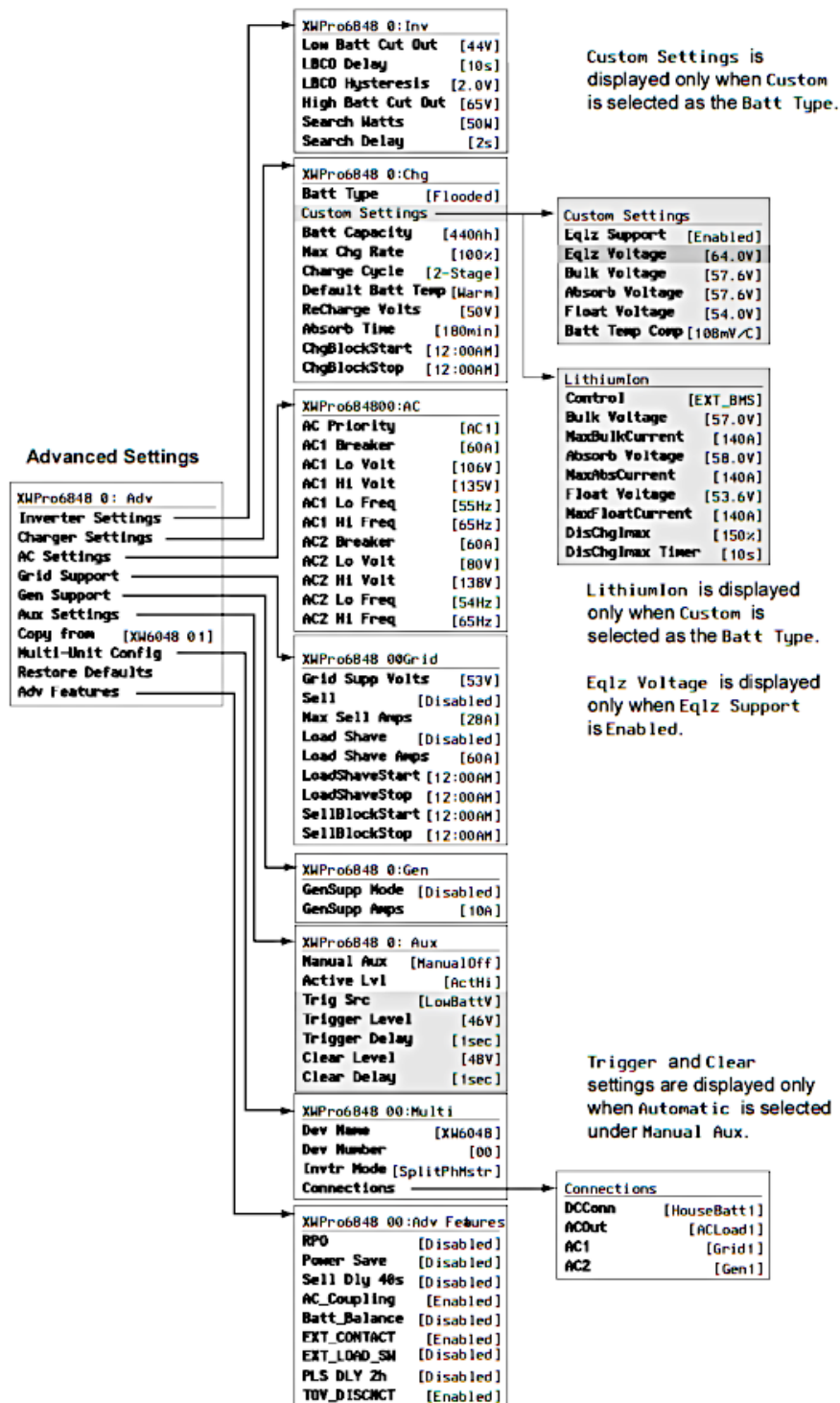
Setting Name	Setting Value
Inverter / Low Battery Cut Out	48V
Inverter / Low Battery Cut Out Delay	10 seconds
Inverter / Low Battery Cut Out Hysteresis	2V
Inverter / High Battery Cut Out	60V
Charger / Batt Type	Custom
Charger / Batt Capacity	180 Ah
Charger / Max Chg Rate	Set to a percentage of 140A so that when added to the solar charge controller amperage, the sum is 100A (per PLC in parallel)
Charger / Charge Cycle	3 Stage without a solar charge controller 2 stage with a solar charge controller
Charger / Default Batt Temp	Warm (the default)
Charger / Recharge Volts	48.4V
Charger / Absorb Time	8 Hours
Charger / Custom / Eqlz Support	Enabled
Charger / Custom / Eqlz Voltage	56.4V (14.1V * 4)
Charger / Custom / Bulk Voltage	56.4V (14.1V * 4)
Charger / Custom / Bulk Termination Voltage	55.6V (required to be at least .8V below Bulk)
Charger / Custom / Absorb Voltage	56.4V (14.1V * 4)
Charger / Custom / Float Voltage	54.4V (13.6V * 4)
Charger / Custom / Batt Temp Comp	-3mV/ °C



Notes

## Resources

System Control Panel (SCP) XW Pro Menu Map (in case you don't have a Gateway or InsightHome/Facility)





## InsightCloud Navigation

These screenshots are from demonstration sites using random data on InsightCloud

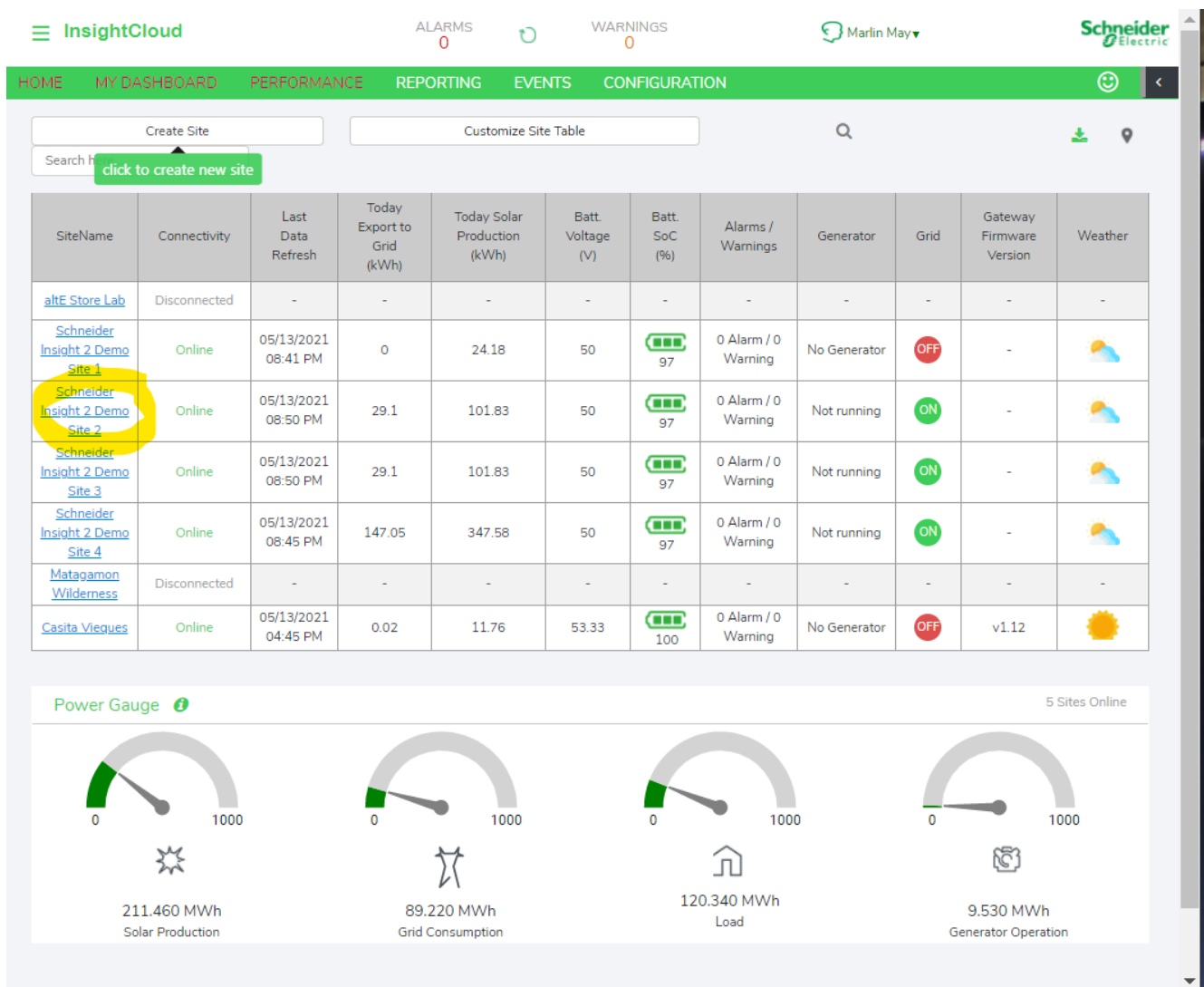
- <https://www.insightcloud.se.com/>

To see this data for yourself and to practice using Insight 2, point your web browser to <https://www.insightcloud.se.com/>, create an account, and create a new site using;

- URN: urn:dev:opm:000054-Combo-587AC6N2XWCL1
- SERIAL NUMBER: SESA405035

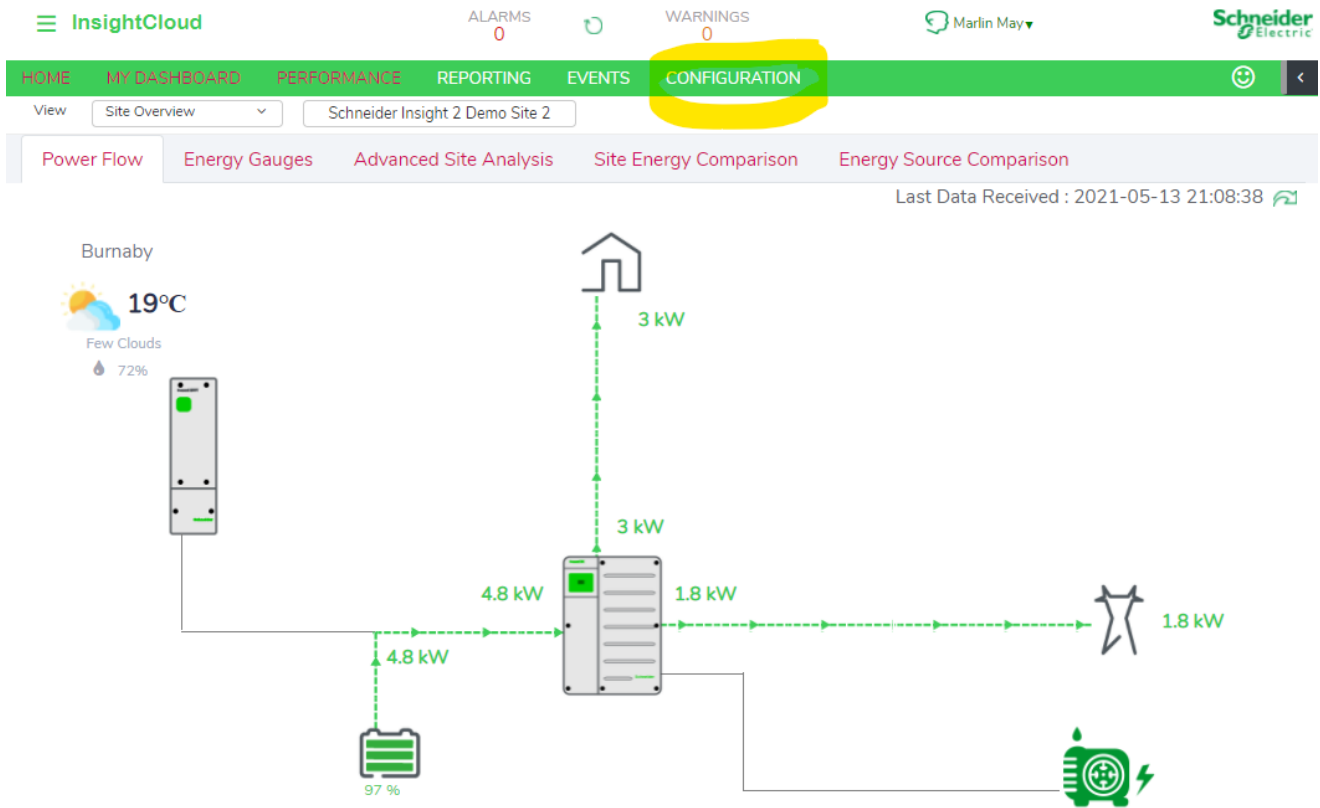
This Schneider demo site simulates a dual XW single phase system with 4 Schneider Conext MPPT 80 charge controllers, a Conext Battery Monitor and a Conext Automatic Generator Start. Input any site name you wish, any date you want for the commissioning date and estimate the site, battery bank and inverter sizes using your preferred method. For this example, it was named Schneider Insight 2 Demo Site 2.

From the InsightCloud home page click the demo site you set up above.



# KILOVAULT

On the Site Overview page, click "Configuration" to select the demo site you set up earlier.



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# KILOVAULT

In the Device List, Click "Inverter Charger" to reveal the XW inverters. Click on one of them to load the settings control panel. To see all of the settings categories, click the "- Collapse all" button. The settings mentioned above are all available here.

The screenshot displays the InsightCloud interface for a Schneider Electric site. At the top, there are navigation tabs: HOME, MY DASHBOARD, PERFORMANCE, REPORTING, EVENTS, and CONFIGURATION. The CONFIGURATION tab is active, showing sub-tabs for Sites And Devices, User Rights, Email Notifications, Financial Settings, and Firmware. The main content area shows the site name "Schneider Insight 2 Demo Site 2" and buttons for "Create site", "Duplicate", and "Delete".

On the left, a "DEVICE LIST" sidebar is visible. The "Inverter Charger" category is highlighted with a yellow circle. Below it, two devices are listed: "[101]" and "[102]".

The main panel displays the "Inverter Charger - [101] settings". At the top of this panel, there are buttons for "Expand all", "Import Settings", "Export Settings", "Refresh", and "Apply Changes". Below these are several settings categories, each with a right-pointing arrow:

- CONTROL
- INVERTER
- CHARGER
- AC
- APC
- GRIDSUPPORT
- GRIDVSUPPORT
- GENSUPPORT
- AUXRELAY
- MULTIUNIT
- ASSOC
- ADVANCED
- DEV
- BMS

At the bottom of the settings panel, there are buttons for "+ Expand all", "Refresh", and "Apply Changes".

At the very bottom of the page, the copyright notice reads: "Copyright 2021 Schneider Electric - Solar v - 1.00.9b53666".

## InsightCloud XW Pro Menus

### Inverter

The screenshot displays the InsightCloud XW Pro configuration interface for an Inverter. The top navigation bar includes 'HOME', 'MY DASHBOARD', 'PERFORMANCE', 'REPORTING', 'EVENTS', and 'CONFIGURATION'. The 'CONFIGURATION' menu is active, showing sub-menus for 'Sites And Devices', 'User Rights', 'Email Notifications', 'Financial Settings', and 'Firmware'. The current site is 'Schneider Insight 2 Demo Site 2'. The left sidebar lists device categories: Site, Inverter Charger (selected), Battery, User Interface, Charge Controller, and Generator. The main content area shows the 'Inverter Charger - [101] settings' page, which includes buttons for 'Expand all', 'Import Settings', 'Export Settings', 'Refresh', and 'Apply Changes'. The settings are organized into sections: CONTROL, INVERTER, CHARGER, AC, APC, GRIDSUPPORT, and GENSUPPORT. The INVERTER section contains the following settings:

- Low Battery Cut Out: 44 V
- High Battery Cut Out: 65 V
- Maximum Search Watts: 55 W
- XW Power Factor: 1
- High SOC Cut Out: 99 %
- Low Battery Cut Out SOC: 25 %
- Low Battery Cut Out Delay: 10 s
- Search Mode: Yes (checked)
- Search Delay: 2 s
- Low Battery Cut Out Hysteresis: 2 V
- High SOC Cut Out Delay: 60 s
- Low Battery Cut Out SOC Delay: 60 s

At the bottom of the settings area, there are buttons for '+ Expand all', 'Refresh', and 'Apply Changes'.

## Charger

The screenshot displays the 'Charger' configuration page in the KiloVault interface. At the top, there are navigation tabs for 'HOME', 'MY DASHBOARD', 'PERFORMANCE', 'REPORTING', 'EVENTS', and 'CONFIGURATION'. Below these are sub-tabs for 'Sites And Devices', 'User Rights', 'Email Notifications', 'Financial Settings', and 'Firmware'. The main content area shows the configuration for 'Schneider Insight 2 Demo Site 2'. On the left is a 'DEVICE LIST' with expandable sections for 'Inverter Charger', 'Battery', 'User Interface', 'Charge Controller', and 'Generator'. The main panel is titled 'Inverter Charger - [101] settings' and contains a 'CHARGER' section with various adjustable parameters:

- Battery Type:** Gel
- Battery Bank Capacity:** 44C Ah
- Maximum Charge Rate:** 6 %
- Maximum Bulk Charge Current:** 140 A
- Maximum Absorption Charge Current:** 140 A
- Maximum Float Charge Current:** 140 A
- Charge Cycle:** 2 Stage
- Default Battery Temperature:** Warm
- Recharge Voltage:** 50 V
- Absorption Time:** 10E s
- Charge Block Start:** 00:00
- Charge Block Stop:** 00:00
- Equalize Support:** No
- Equalize Now:** No
- Equalize Voltage Set Point:** 64 V
- Bulk/Boost Voltage Set Point:** 56.8 V
- Absorption Voltage Set Point:** 56.8 V
- Float Voltage Set Point:** 55.2 V
- Maximum Discharge Current:** 15C A
- Maximum Discharge Time Interval:** 8 s
- Bulk Termination Voltage:** 55.2 V
- Bulk Termination Time:** 1 s
- Recharge SOC:** 50 %
- Recharge SOC Delay:** 60 s

## Links

- XWPro Installation Guide:
  - [https://solar.schneider-electric.com/download/xw-pro-iec-user-documentation/?ind=media-10991&filename=ML202007\\_XW-PRO-NA-Installation-Guide990-91228A-01\\_rev-A.pdf&wpdmdl=10331&refresh=609d81c0eba181620935104](https://solar.schneider-electric.com/download/xw-pro-iec-user-documentation/?ind=media-10991&filename=ML202007_XW-PRO-NA-Installation-Guide990-91228A-01_rev-A.pdf&wpdmdl=10331&refresh=609d81c0eba181620935104)
- XWPro Owner's Guide:
  - [https://solar.schneider-electric.com/download/xw-pro-iec-user-documentation/?ind=13254&filename=ML202003\\_Conext-XW-Pro-NA-Owners-Guide-990-91227A-01.pdf&wpdmdl=10331&refresh=609d81c0eb90b1620935104](https://solar.schneider-electric.com/download/xw-pro-iec-user-documentation/?ind=13254&filename=ML202003_Conext-XW-Pro-NA-Owners-Guide-990-91227A-01.pdf&wpdmdl=10331&refresh=609d81c0eb90b1620935104)
- KiloVault HLX / CHLX Manual:
  - [https://www.altestore.com/static/datafiles/Others/KiloVault\\_HLX\\_Series\\_Manual\\_V2.1.2\\_April022021.pdf](https://www.altestore.com/static/datafiles/Others/KiloVault_HLX_Series_Manual_V2.1.2_April022021.pdf)
- KiloVault HAB Manual:
  - <https://www.altestore.com/static/datafiles/Others/KLV%20HAB%20Installation%20and%20User%20Manual%20Rev%202021.06.pdf>
- KiloVault PLC Manual:
  - <https://www.altestore.com/static/datafiles/Others/KiloVault%20100%20PLC%20Installation%20and%20User%20Manual%20Rev%202021.04.pdf>

