DSS User Instruction

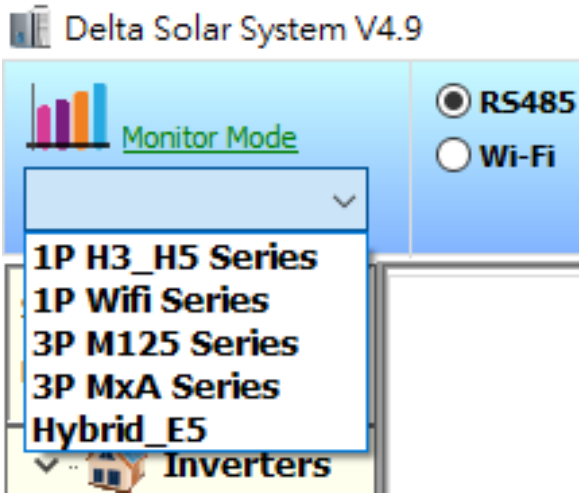
DSS User Instruction

- First Connection
- Main Page
- Config Page
- Ctrl Page
- Other Function

Delta Confidential

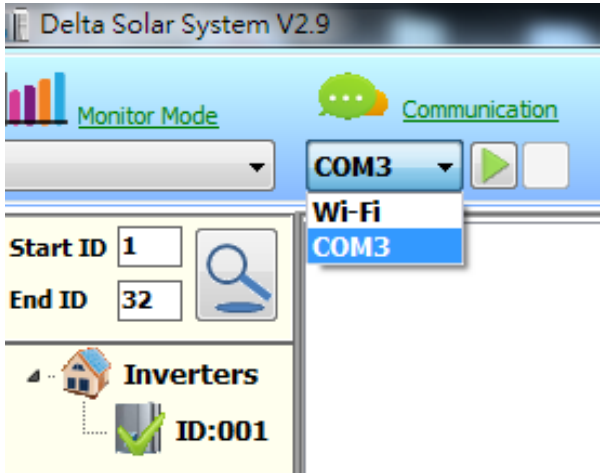
First Connection

1. Choose corresponding model

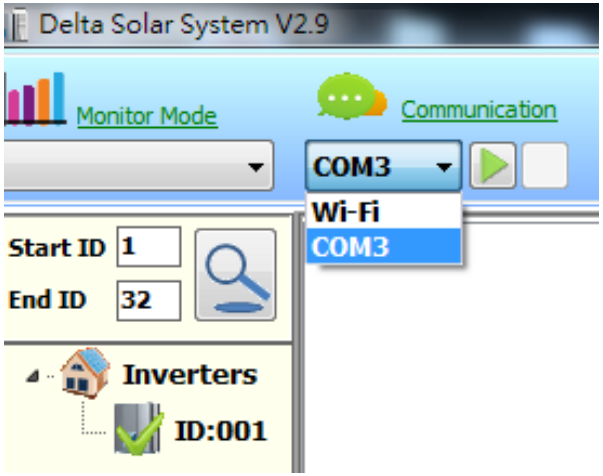


2. Select USB COM port which connects to RS 485 box

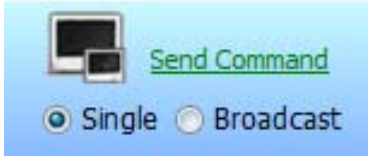
3. Press"▶" button



4. Check inv ID
5. Key in Start ID & End ID
6. Press "🔍" button



7. Choose "Broadcast" can send command to all inverter detected.



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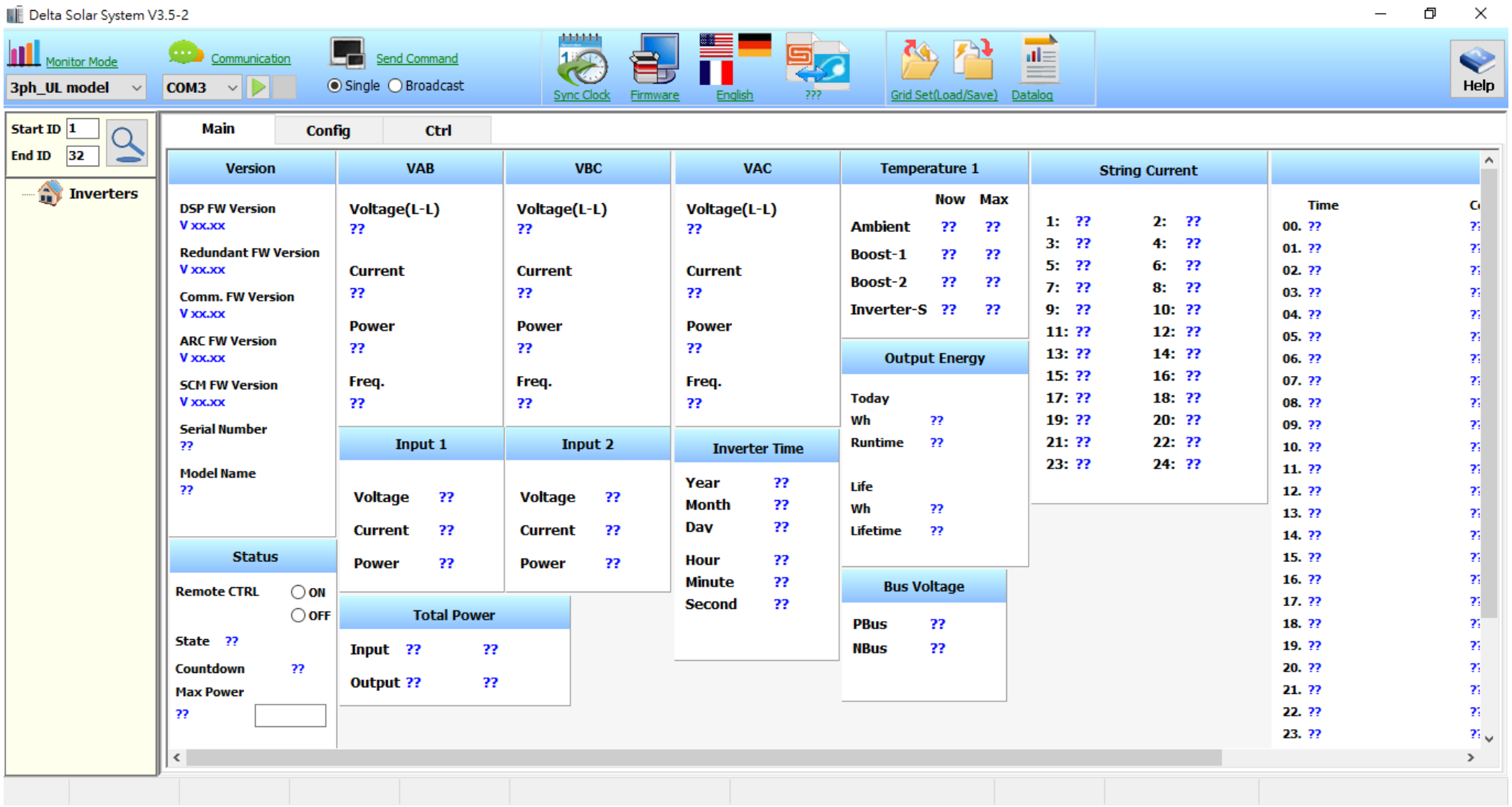
Main Page

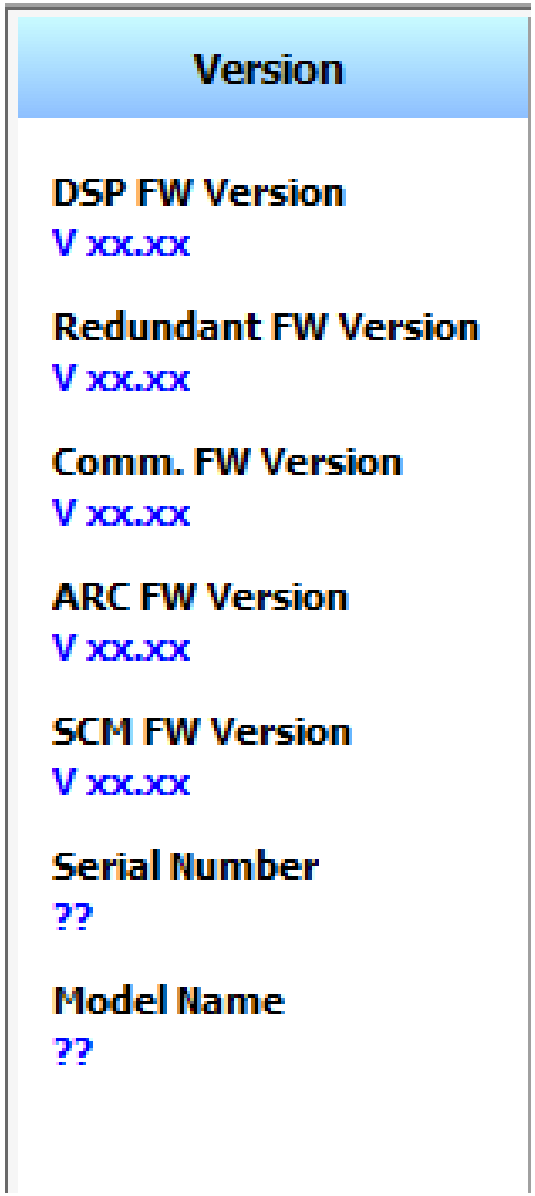

Delta Solar System V3.5-2
Monitor Mode
Communication
Send Command
3ph_UL model
COM3
Single
Broadcast
Sync Clock
Firmware
English
???
Grid Set(Load/Save)
Datalog
Help
Start ID 1
End ID 32
Inverters
Main
Config
Ctrl
Version
DSP FW Version
V xx.xx
Redundant FW Version
V xx.xx
Comm. FW Version
V xx.xx
ARC FW Version
V xx.xx
SCM FW Version
V xx.xx
Serial Number
??
Model Name
??
VAB
Voltage(L-L)
??
Current
??
Power
??
Freq.
??
VBC
Voltage(L-L)
??
Current
??
Power
??
Freq.
??
VAC
Voltage(L-L)
??
Current
??
Power
??
Freq.
??
Temperature 1
Now Max
Ambient ?? ??
Boost-1 ?? ??
Boost-2 ?? ??
Inverter-S ?? ??
String Current
1: ?? 2: ??
3: ?? 4: ??
5: ?? 6: ??
7: ?? 8: ??
9: ?? 10: ??
11: ?? 12: ??
13: ?? 14: ??
15: ?? 16: ??
17: ?? 18: ??
19: ?? 20: ??
21: ?? 22: ??
23: ?? 24: ??
Time
00. ??
01. ??
02. ??
03. ??
04. ??
05. ??
06. ??
07. ??
08. ??
09. ??
10. ??
11. ??
12. ??
13. ??
14. ??
15. ??
16. ??
17. ??
18. ??
19. ??
20. ??
21. ??
22. ??
23. ??
Input 1
Voltage ??
Current ??
Power ??
Input 2
Voltage ??
Current ??
Power ??
Inverter Time
Year ??
Month ??
Dav ??
Hour ??
Minute ??
Second ??
Output Energy
Today
Wh ??
Runtime ??
Life
Wh ??
Lifetime ??
Bus Voltage
PBus ??
NBus ??
Status
Remote CTRL
ON
OFF
State ??
Countdown ??
Max Power
??
Total Power
Input ?? ??
Output ?? ??

Main Page

- Version
- Input 1
- Input 2
- String Current
- Bus Voltage
- Output 1
- Output 2
- Output 3
- Output Power
- Output Energy
- Inverter Time
- Temperature
- Error Event

Delta Confidential

Main Page_Version



- Showing all FW version
- Serial Number
- Model Name

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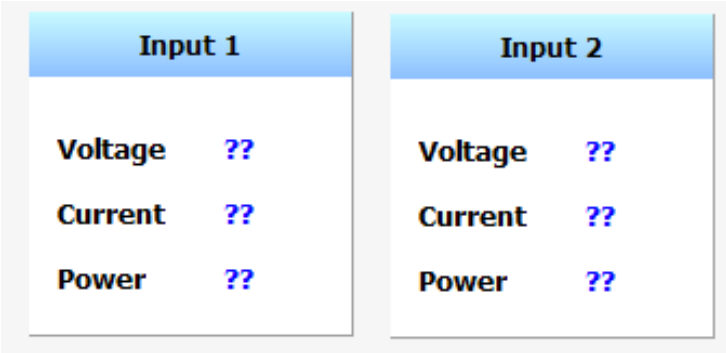
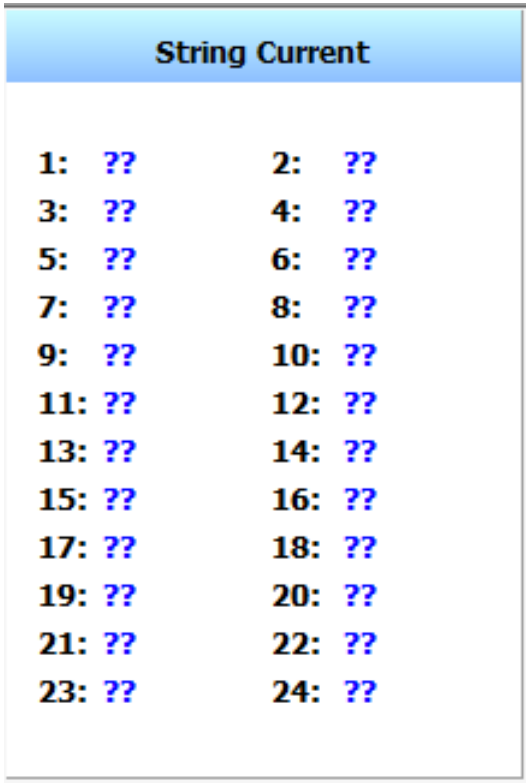
Main Page_Input





- Showing input voltage/Current/Power readings
- Showing each string current

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Main Page_Input

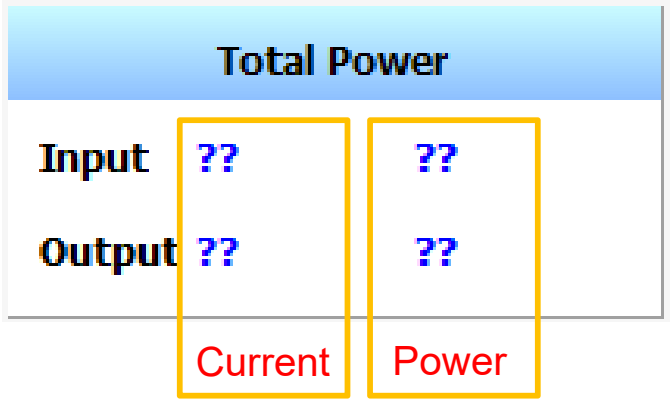
VAB	VBC	VAC
Voltage(L-L) ??	Voltage(L-L) ??	Voltage(L-L) ??
Current ??	Current ??	Current ??
Power ??	Power ??	Power ??
Freq. ??	Freq. ??	Freq. ??

- Showing Output voltage/Current/Power/Freq readings

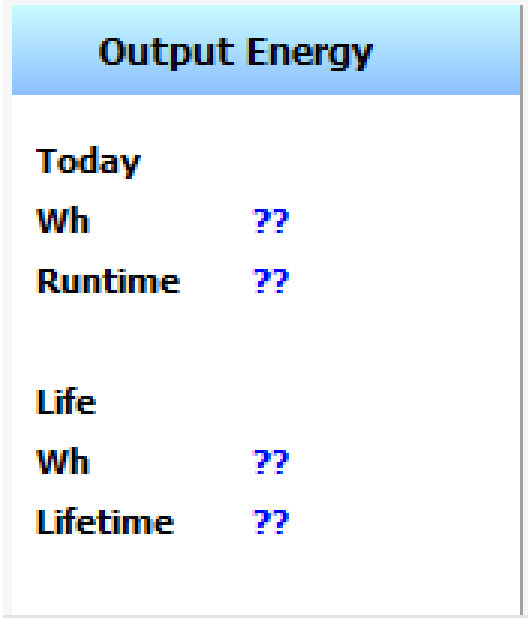
Bus Voltage	
PBus	??
NBus	??

- Showing bus voltage of internal bus capacitor

Main Page_Output Power/Energy



- Showing total output information, include current and power



- Showing Energy generated and runtime for today / Life

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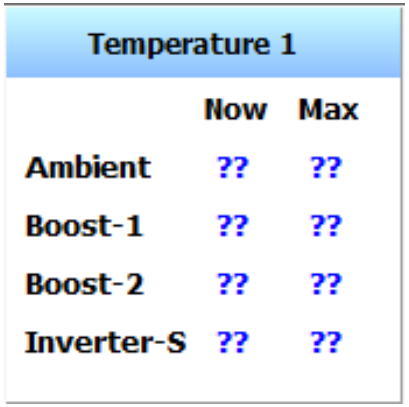
Main Page_Time_Temperature

- Showing inverter time



- Showing temperature for internal ambient and module

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Main Page_Error Event

Error Event	
Time	Code
00. ??	??
01. ??	??
02. ??	??
03. ??	??
04. ??	??
05. ??	??
06. ??	??
07. ??	??
08. ??	??
09. ??	??
10. ??	??
11. ??	??
12. ??	??
13. ??	??
14. ??	??
15. ??	??
16. ??	??
17. ??	??
18. ??	??
19. ??	??
20. ??	??
21. ??	??
22. ??	??
23. ??	??
24. ??	??

- Log error events up to 30 pcs

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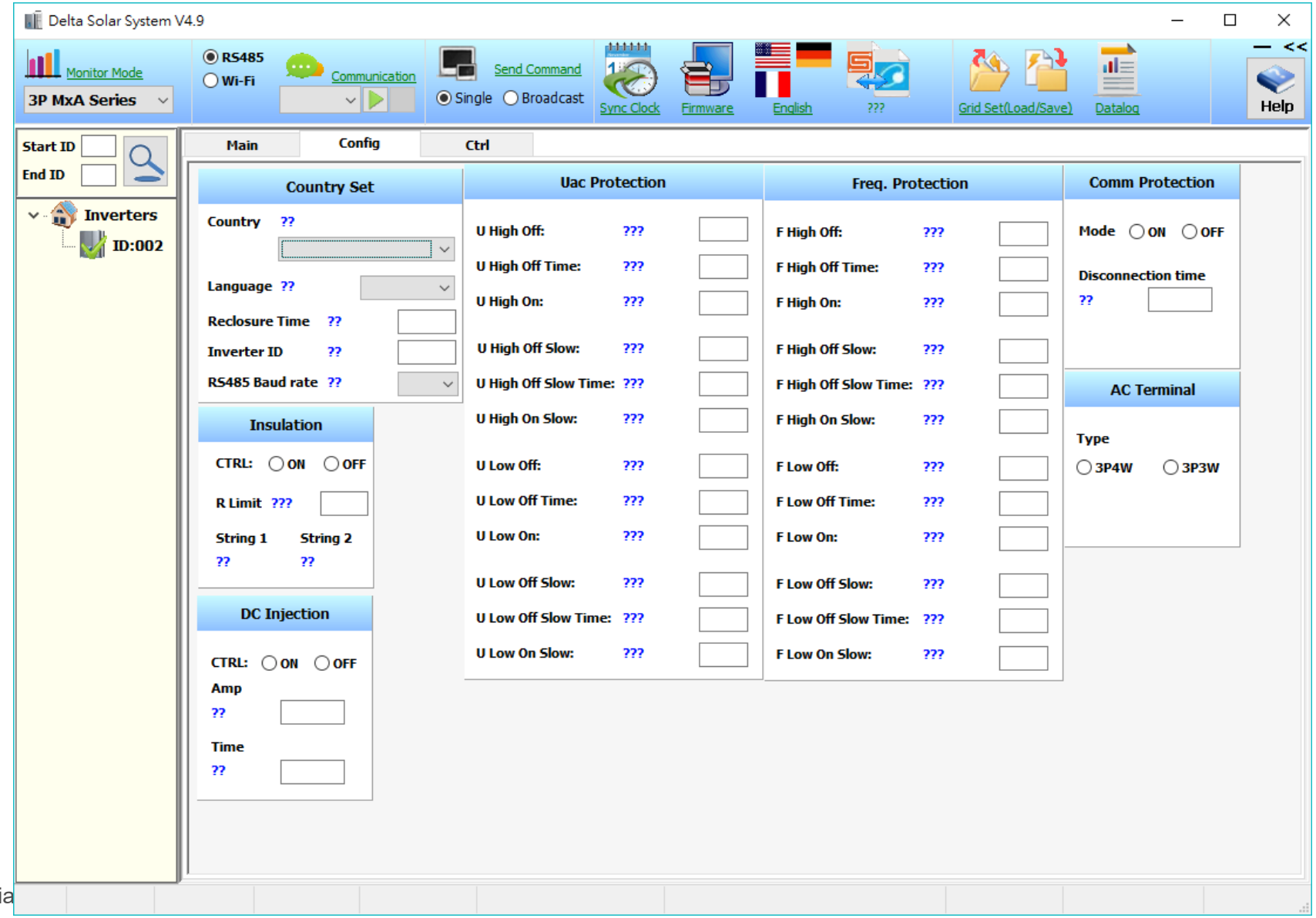
Config Page

- PW:4613

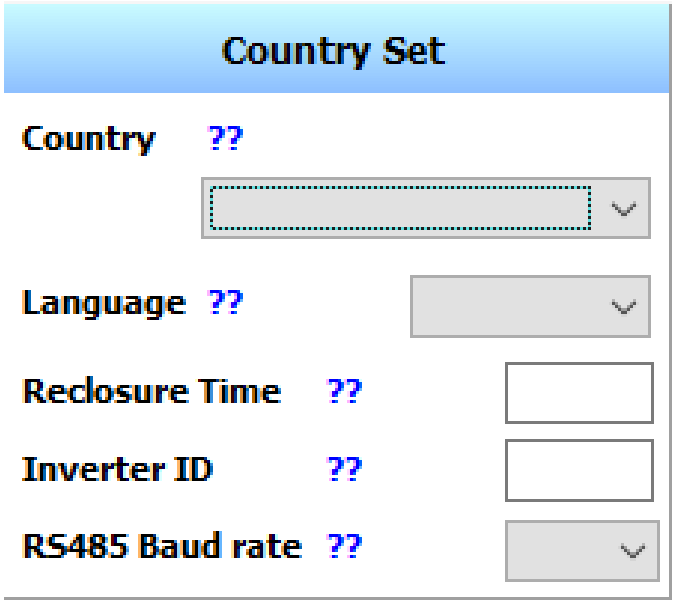


Config Page

- Country Set
- Uac Protection
- Freq. Protection
- AC Terminal
- Insulation
- DC Injection

Delta Confidential

Config Page_Country Set



- Country Set: allowed to choose different country setting.
- Reclosure time: allowed to change reclosure time

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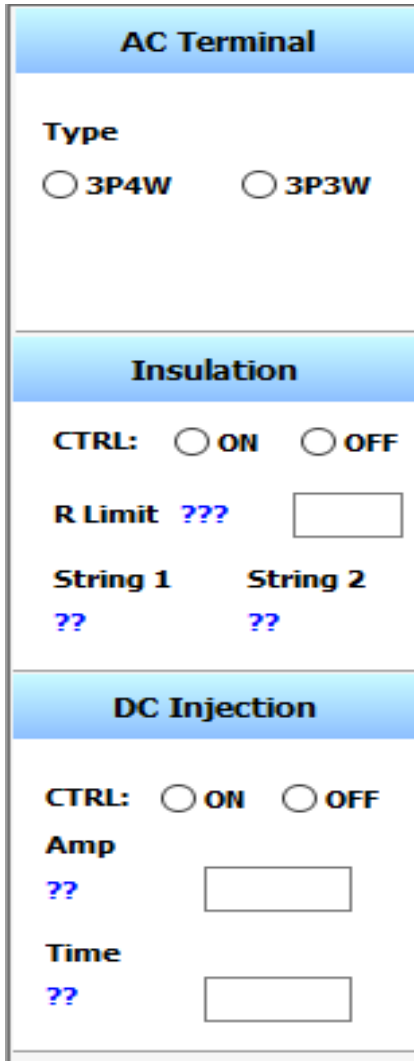
Config Page_Uac/Freq. Protection

Uac Protection			Freq. Protection		
U High Off:	???		F High Off:	???	
U High Off Time:	???		F High Off Time:	???	
U High On:	???		F High On:	???	
U High Off Slow:	???		F High Off Slow:	???	
U High Off Slow Time:	???		F High Off Slow Time:	???	
U High On Slow:	???		F High On Slow:	???	
U Low Off:	???		F Low Off:	???	
U Low Off Time:	???		F Low Off Time:	???	
U Low On:	???		F Low On:	???	
U Low Off Slow:	???		F Low Off Slow:	???	
U Low Off Slow Time:	???		F Low Off Slow Time:	???	
U Low On Slow:	???		F Low On Slow:	???	

- Allowed to change Uac/Freq. protection setting
- Key in value in the blank, if the value is out of the range, it will not be modified in inverter side.

Delta Confidential

Config Page_detection functions



- Allowed to change AC terminal setting
- if there has N wire on AC side please chose 3P4W
- Allowed to enable/disable Insulation detection
- Allowed to enable/disable DC injection detection.

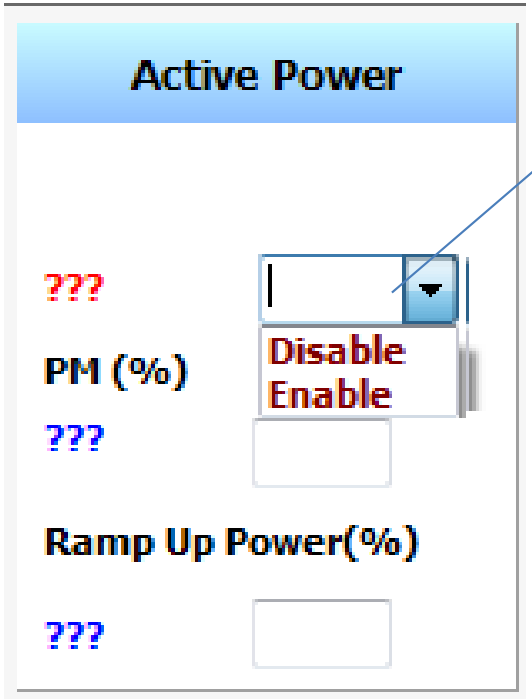
Delta Confidential

Ctrl Page

- Active Power
- P-F Control
- P(U) Function
- Reactive Power
- Q(U) Control
- Cos(Φ) of P Ctrl

Delta Confidential

Ctrl Page_Active Power



- Enable/Disable this function
- PM(%): control the max output power percentage (0~100%)
- Ramp up power (%): ramp up rate per minute (max 6000)

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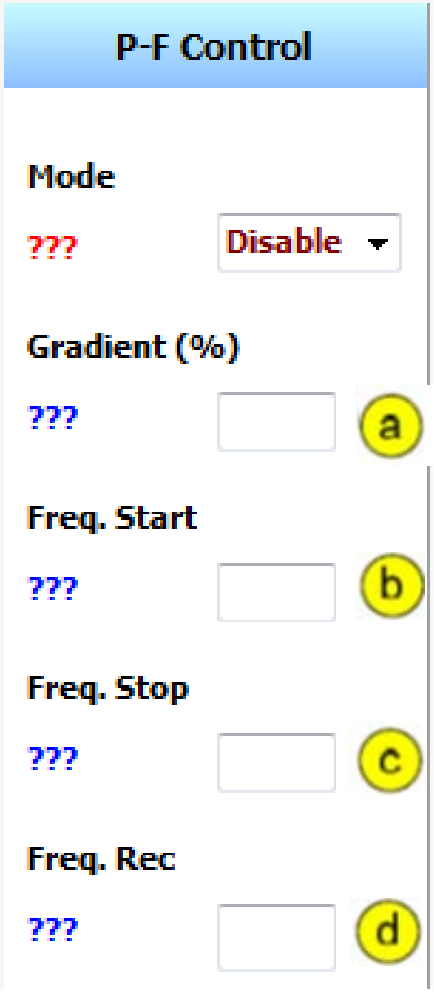
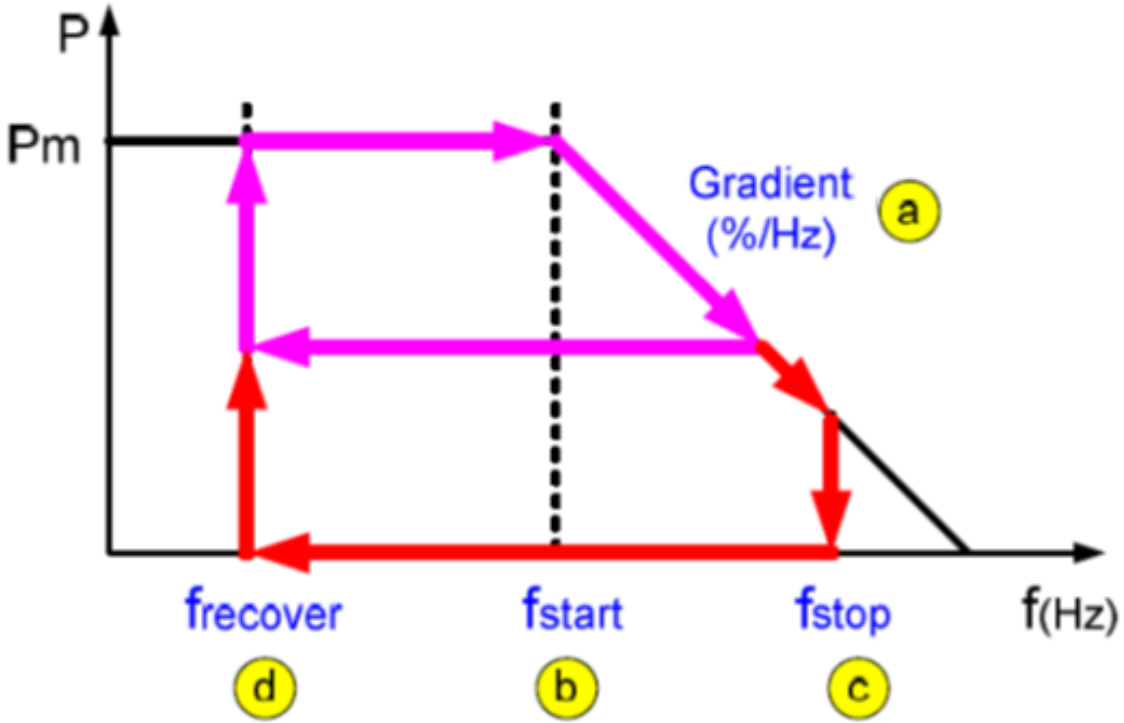
Ctrl Page_P-F Control



- Enable/Disable this function



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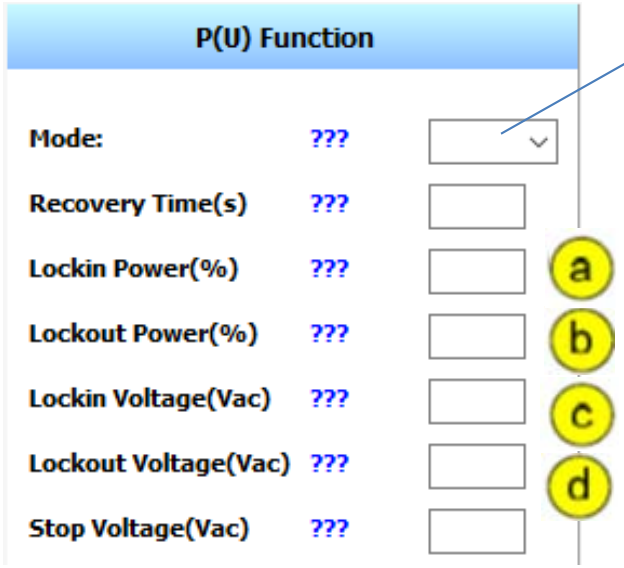
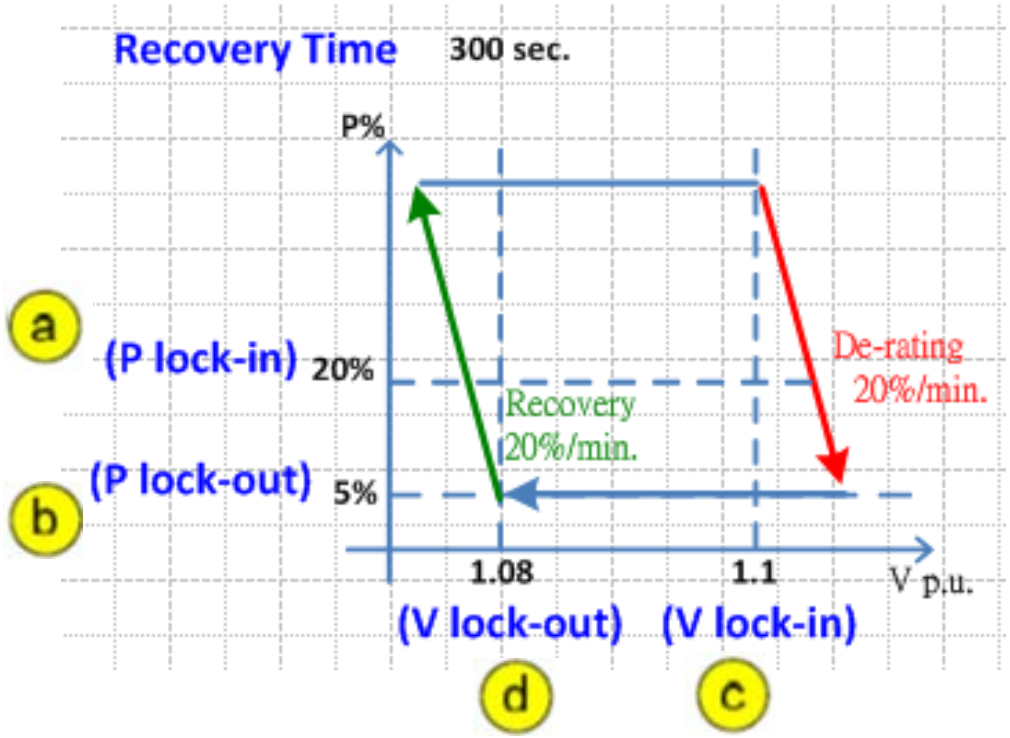
Ctrl Page_P(U) Control

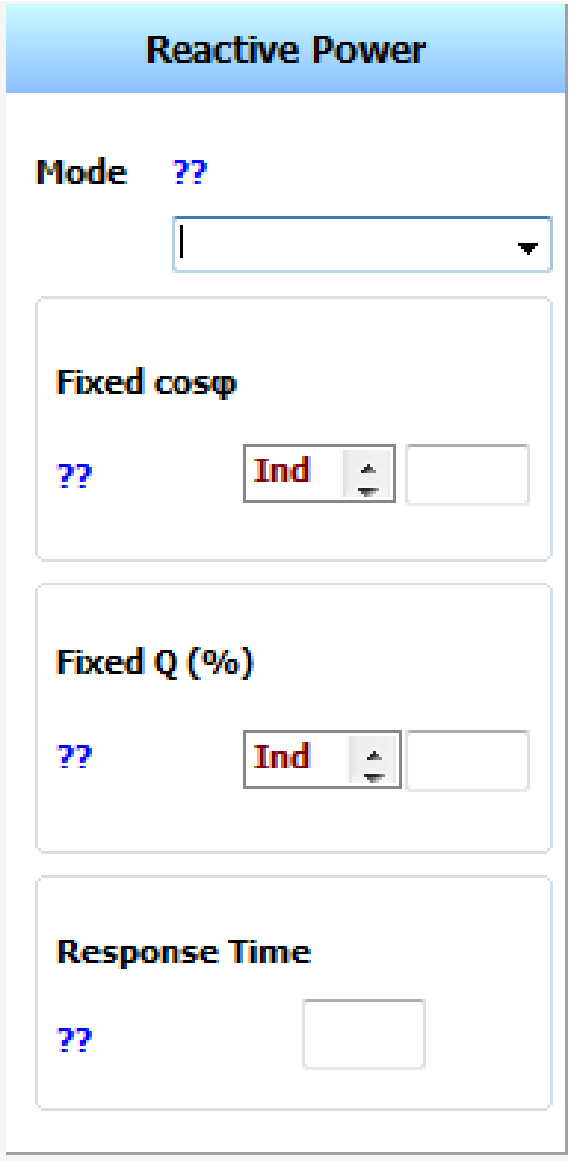


- Enable/Disable this function



- Enable/Disable this function

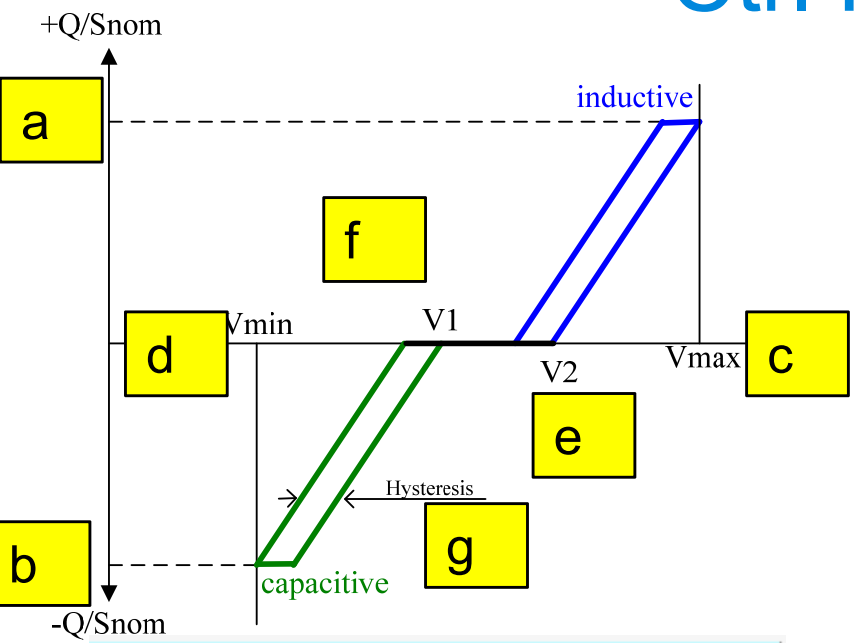
Ctrl Page_Reactive Power

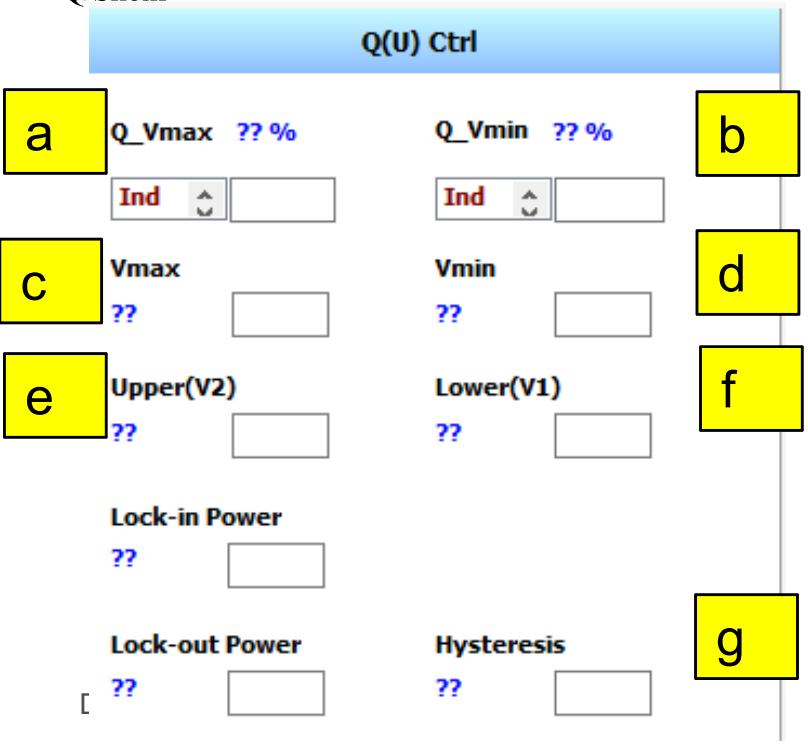


- Mode: Select reactive power mode
- Fixed cosΦ: when in “Constant cosΦ “mode, the value can be controlled here.
- Fixed Q: when in “Constant Q “mode, the value can be controlled here.
- Response time: decide the response time for all reactive power function

Delta Confidential

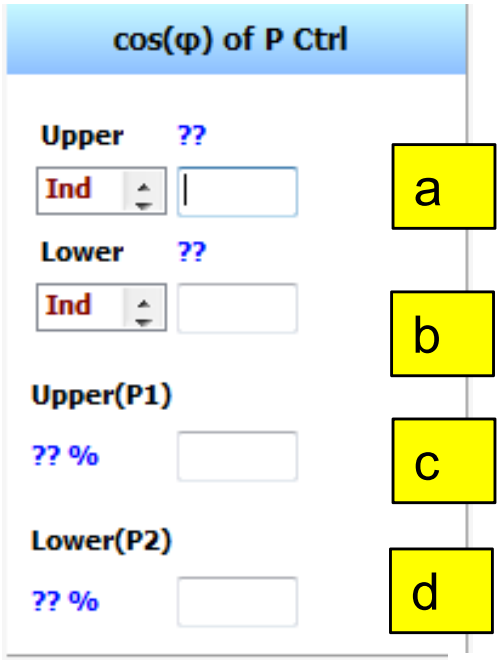
Ctrl Page_Q(U) Control



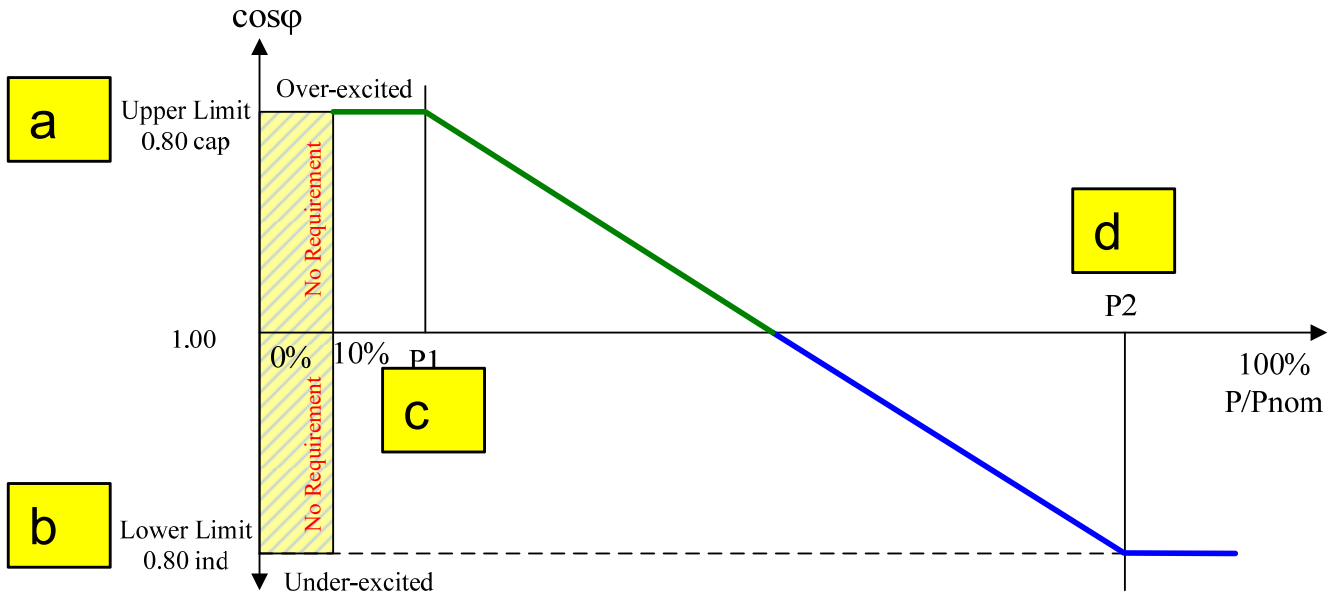


- Q(U) function will be controlled in “Reactive Power ”page
- Lock-in Power : when active power is higher than this value, this function start working
- Lock-out Power: when active power is lower than this value, this function stop working

Ctrl Page_Cos(Φ) of P Ctrl



- Cos(Φ) of P Ctrl function will be controlled in “Reactive Power ”page

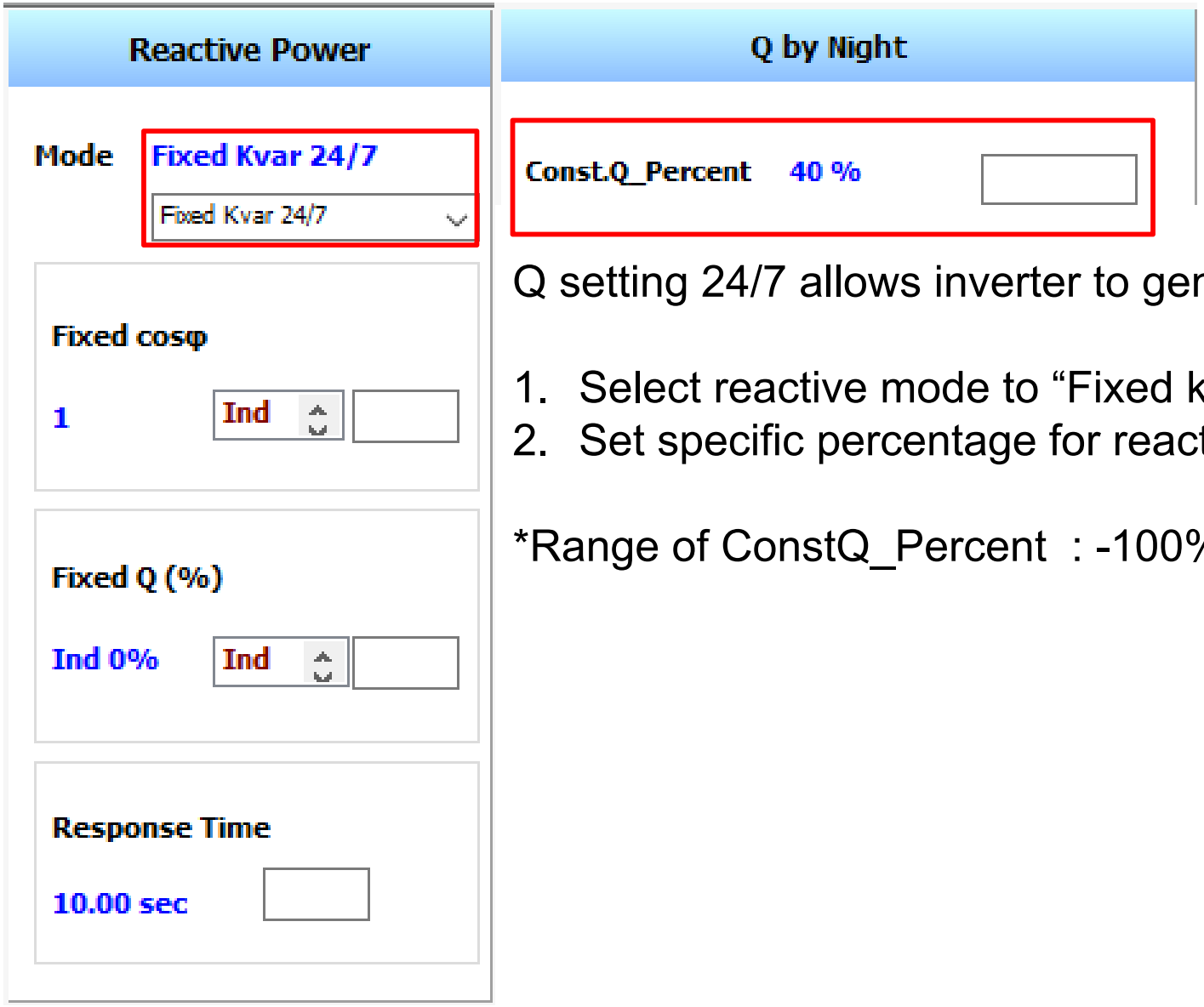


Ctrl Page_Fan test

- You can use fan test function to test the fan.

Delta Confidential

Q setting 24/7



Q setting 24/7 allows inverter to generate fixed reactive power at night

1. Select reactive mode to “Fixed kvar 24/7”
2. Set specific percentage for reactive power.

*Range of ConstQ_Percent : -100%~+100%

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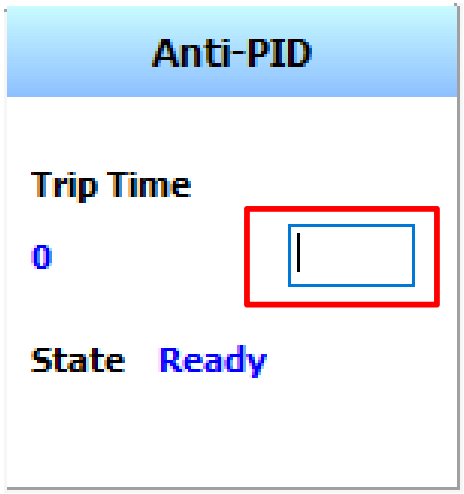
Anti-PID



When Trip time is ‘0’ means this function is disable, if the value has been set, the anti-PID function will start after 30 mins when inverter status shows “No DC”

1. Set specific value for anti-PID function active time.

*Range of Trip Time value : 0~11 (hour)

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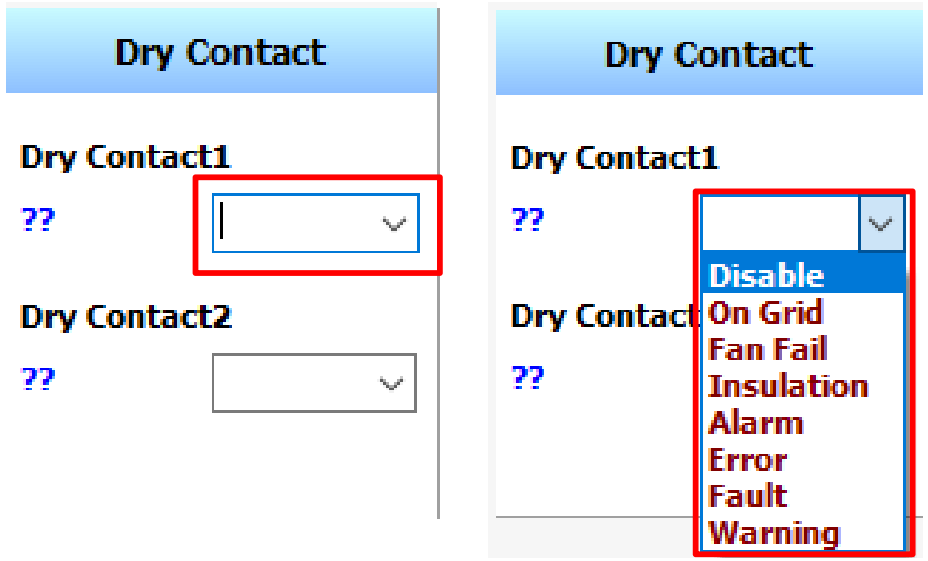
Dry contact



Dry contact function allow you to set external alarm device base on inverter status, dry contact relay will close when the selected status happend

1. Set specific status you want to trigger the relay.

Items : On grid, Fan Fail, Insulation, Alarm, Error, Fault, Warning

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Other Function

- Sync Clock
- Firmware
- Language
- Protocol
- Grid set
- Datalog

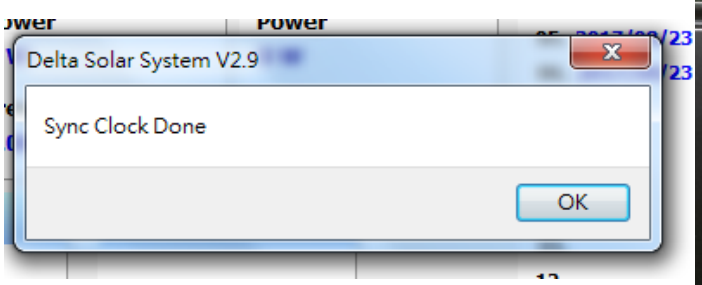
Delta Confidential

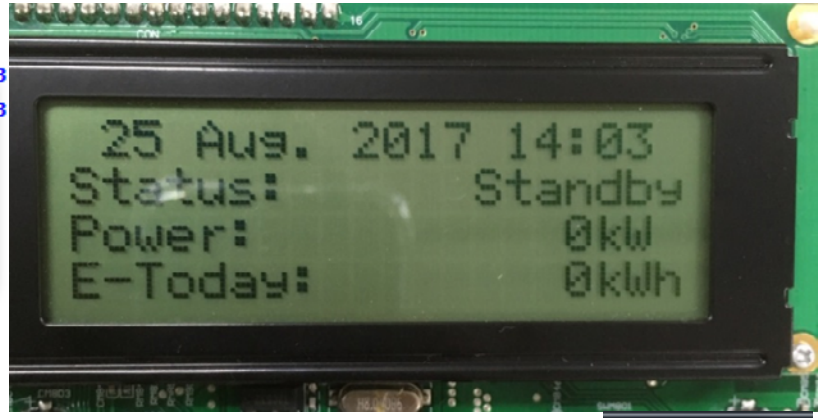
Other Function_Sync Clock

- Sync Clock Function can synchronize inverter's time with your laptop's.

- EX:

Before Sync



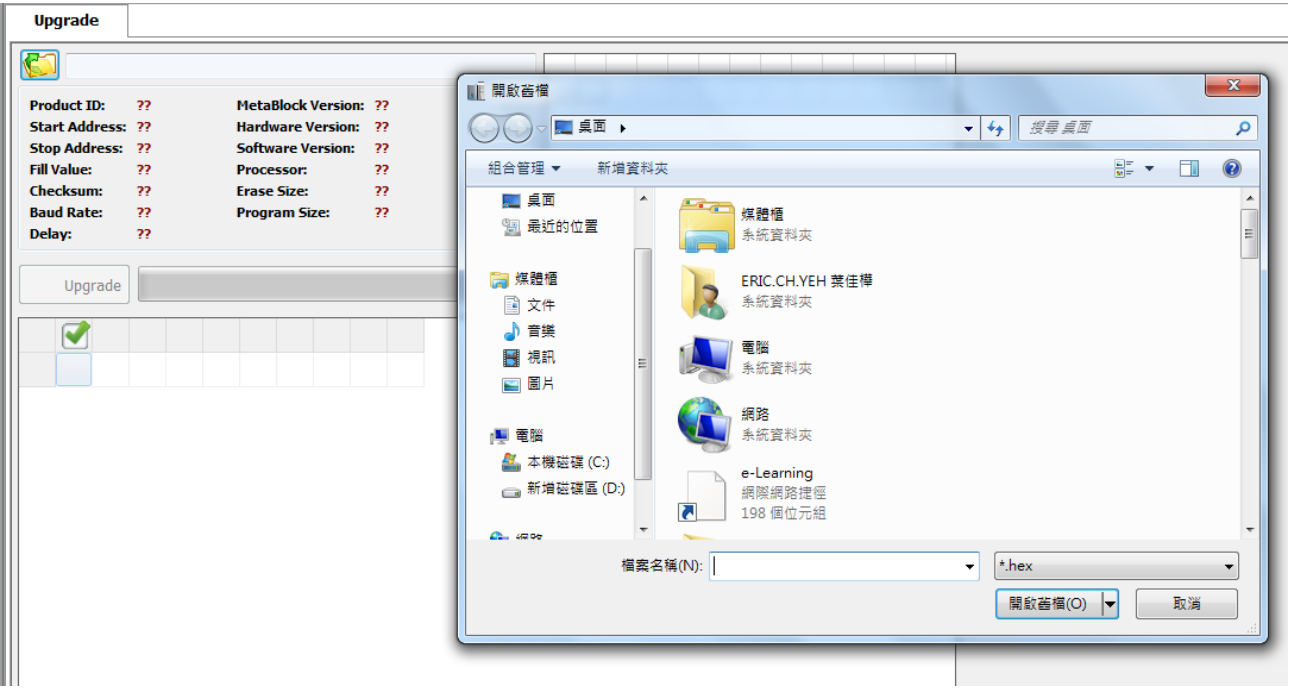


After Sync

下午 02:03
2017/8/25

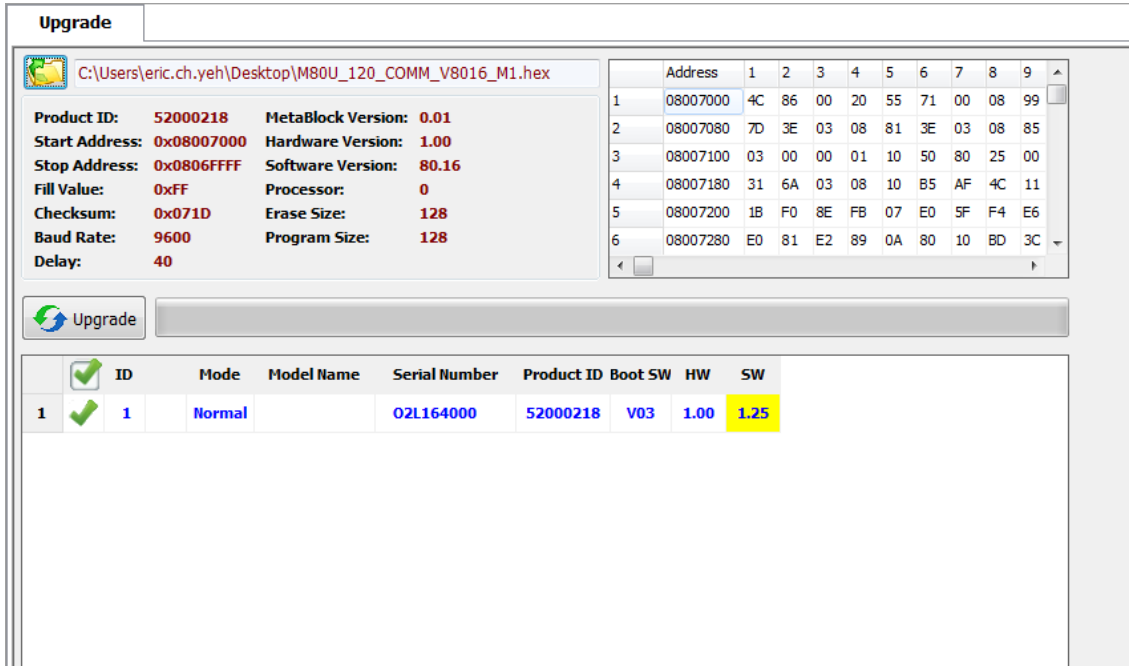
Other Function_Firmware

- Firmware Function : for FW upgrade



- After first connection, press” ”to load FW file.

Other Function_Firmware



- After the file is loaded, the current FW version will shown in yellow, you can know whether the FW needs to be upgraded or not.
- If yes, press “ ”

- When upgrade finished, “Upgrade Done” will be shown

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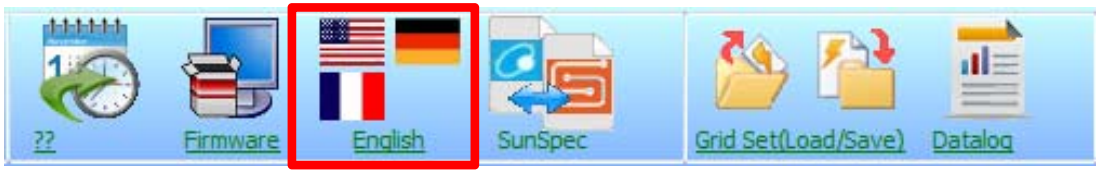
Other Function_Language_Protocol



- Language: three languages available (English /German/French) by clicking the national flag.

- Protocol: Switch between Sunspec & Delta protocol

Notice: if switched to Sunspec, there will be no readings in DSS because DSS is for Delta protocol

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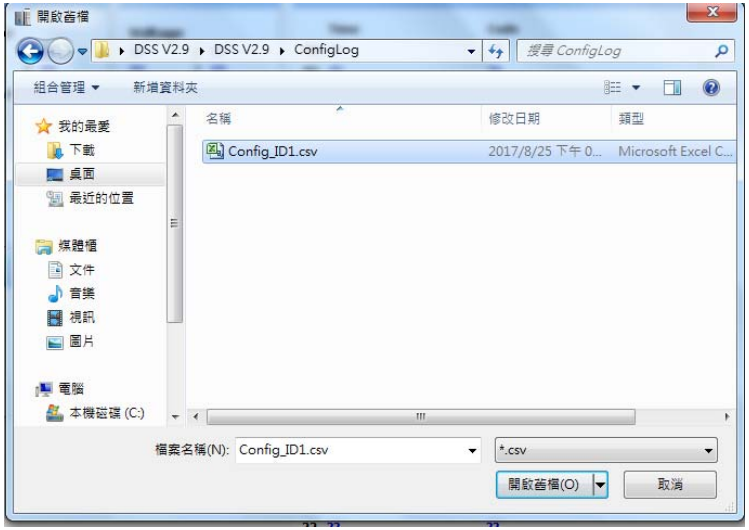
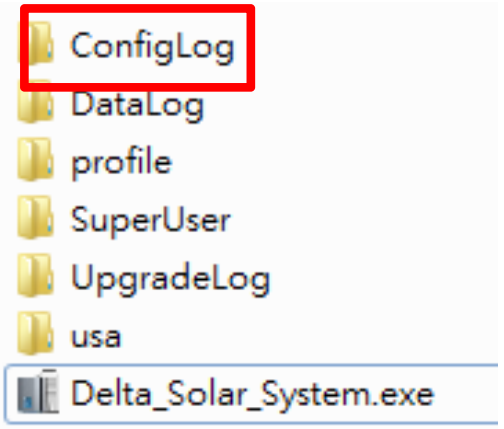
Other Function_Grid set

- Grid save: save the Grid setting as “Config_ID1”

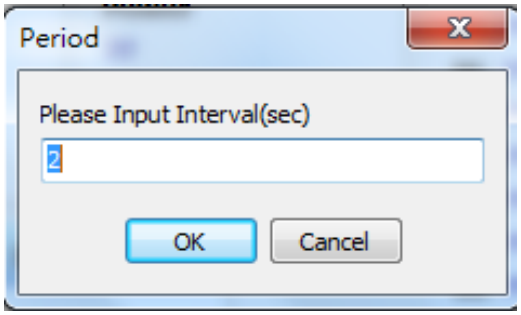
- Grid load: “Config_ID1” can be found in “Configlog” folder, the setting can be implemented to other inverters.

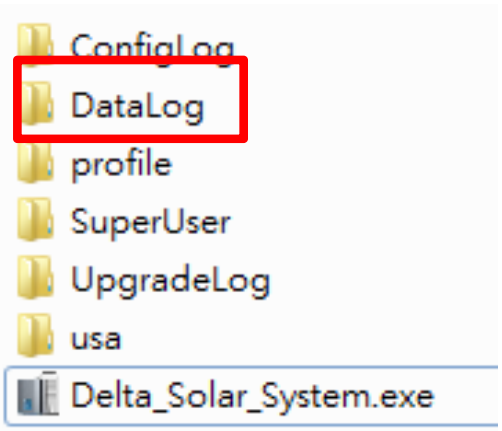




Other Function_Datalog

- Datalog Function: log data in Main page.
- Time interval can be chosen
- Data will be in “Datalog” folder





Thank you!

Smarter. Greener. Together.

To learn more about Delta, please visit www.deltaww.com.