E4 LCD Monitor Basic Application Settings Overview

Date	Version	Remark	Author
2022/9/30	V1.0	First Version	Yago Shen/Nikulas Chen
2023/1/13	V1.1	Add some parameter Settings	Yago Shen/Nikulas Chen
2023/7/10	V1.2	Add the Solar settings	Yago Shen

Introduction:

This setting table describes some basic setting parameters that need to be aware of when using E4 LCD Monitor for the first time. Users can choose to set the corresponding parameters based on the application scenarios they need. The setting items marked in blue are must-set items, otherwise the system may not function properly. For other items, users can decide whether to set based on their actual needs.

Note: After the inverter is connected to E4, parameters can only be set on E4 except the inverter three-phase/parallel setting

Application Type	Basic Setting		Explanation	Necessity of Setting
Stand-alone/Parallel/Three-phase system setting (This setting should be configured on the inverter rather than on E4 LCD Monitor)	Parallel System 0- Stand-alone 1- Parallel 2- Three-phase		0: stand-alone setting. 1: parallel setting, and the corresponding parallel address needs to be set under this setting. 2: three-phase setting, and the corresponding phase address and parallel address need to be set under this setting. For details, please refer to User Manual of the inverter.	Must be set
Settings on the number of inverters	Parallel Number		You should set the actual number of inverters that are connected to the system Setting method: Advanced Setting →System→Parallel→ Parallel Number	Must be set
No load is connected to the AC input, and the power supply sequence is PV > battery > grid	Working Mode	Zero Export Load	One of the primary working modes	Must be set
Load can be connected to the AC input, and the power supply sequence is PV > battery > grid		Zero Export CT	One of the primary working modes	Must be set
Energy is first exported to the grid, and energy flow priority is load > energy export > charging		Selling First	One of the primary working modes	Must be set

Energy export related	Grid Standard	If the NRS2017 standard is recognized by the grid, then this standard can be selected for the inverter to export energy to the grid. Setting method: Advanced Setting →AC Input→Grid Code→Grid Standard	Subject to needs, normally default
	Feedback to Grid	Disable/Enable option is available for selecting to determine whether to export energy to the grid	
	Max Selling Power（W）	Set the maximum selling (export) power to the grid	
AC input connected to the grid/generator	Rated Output Voltage（V）	Select AC OUT voltage Advanced Setting →Inverter→ Normal→Rated Output Voltage（V）	Must be set
	Rated Output Frequency（Hz）	Select AC OUT frequency Advanced Setting →Inverter→ Normal→Rated Output Frequency（Hz）	
	Over Voltage Level（V）	Select the maximum AC in voltage	Subject to needs, normally default
	Under Voltage Level（V）	Select the minimum AC in voltage	
	Over Frequency Level（Hz）	Select the maximum AC in frequency	
	Under Frequency Level（Hz）	Select the minimum AC in frequency	
	Allowed Low Quality AC Source	If the grid/generator input source is relatively stable with a good waveform, "Normal" is selected by default; if the grid/generator can not be connected to the inverter, "Weak AC Input"can be selected.	
Inverter connected to battery without communication	Battery type	GEL/AGM/Lead/Flooded/Traction	Must be set
	Max Charging Current（A）	The maximum charging current of the inverter system, which can be set based on the actual battery charging requirements	
	Max Discharging Current（A）	The maximum discharging current of the battery. If the load requirement is higher than this value, the grid will assist in powering the loads.	
	Capacity（Ah）	Set based on the battery's specification and capacity	
	Absorption Voltage（V）	Battery charging absorption voltage	
	Float Voltage（V）	Battery charging float voltage	

Inverter connected to lithium battery via communication	Battery type	Li-Batt	Must be set
	Battery Ah	Set based on the battery's specification and capacity	
	Allowed Float Charging	When communication with the lithium battery is established, the user can decide whether to maintain the float mode after the battery is fully charged by selecting Enable/Disable option.	Subject to needs, normally default
	Negative Offset of Cha Volt (V)	Refer to the User Manual for explanations	Subject to needs, normally default
Relevant AC in current limit settings	Allowed Max.AC Input Current (A)	Set the maximum AC in current to the inverter	Subject to needs, normally default
	AC in Charge	Select Enable/Disable to decide whether to allow the grid to charge the battery. Advanced Setting→Working Mode →AC in Charge	Must be set
Battery reserved capacity settings (SOC/Voltage)	Low SOC/Voltage Alarm	Low battery SOC alarm	Subject to needs, normally default
	Low SOC/Voltage Disconnect	Low battery SOC protection, in which the inverter will turn off the AC output to stop battery discharge.	
	Batt Reserved SOC/Voltage	If the system is connected to a stable grid, the battery reserved capacity will not go lower than this threshold. Setting method: Advanced Setting→ Working Mode→Batt Reserved SOC/Voltage	
Inverter time settings	Time Zone	Set the time zone based on where the user is located	Must be set
	Data & Time	Set year, month, day, hour, minute	
Energy dispatch based on time control	Time of Use	Please refer to User Manual of E4	Subject to needs, normally default

PV system connection settings	Solar Mode	1. DC Coupling 2. AC Coupling 3. AC+DC Setting method: Advanced Setting→System→Function →Solar Mode	Subject to needs, normally default
	Solar Setting	PV Inverter: 1.Communication Protocol → Meter/Solis (Select the Solis communication Protocol when connecting to a Solis inverter, Select the Meter communication Protocol when connecting to other brand PV inverter + Meter) 2.Frequency Shifting (Set according to the frequency Shifting feature of the PV inverter. If connected to Solis or IG, keep the default Settings) 3.PV Inverter Number/ Meter Number 4.PV inverter Function/Meter Function→AC in Parallel/AC Couple PV (PV inverter connection in the AC input of Inverter Select AC in Parallel; If connected to the AC OUT of inverter, select AC Couple PV) 5.PV Inverter addr/Meter addr (Set the PV inverter communication address (starting from address 2). If you connect one PV inverter, set the address to 2. If you connect two PV inverters, set one address to 2 and the other to 3) 6. PV Inverter Rated Power/Meter Rated Power (Set the PV Inverter Rated Power according to the PV Inverter Size) Setting method: Advanced Setting → Solar → Solar Setting→PV Inverter	The AC Couple parameters are needed to set on E4 LCD Monitor. In addition, you also need to set the address on the Solis screen (such as connecting one Solis to set the address 2, two Solis to set the address 2 and 3, the address setting can refer to the Solis manual); If Meter+ other PV inverter are connected, address 2 needs to be set on one Meter, if there are two PV Inverters + Meters, address 2 and 3 need to be set on each Meter (setting can refer to《TBB Meter Simple User Manual (SDM230、SDM630)》)

		Solar Charger： INV MPPT Number（Number of MPPT connections on one inverter ） Setting method: Advanced Setting → Solar → Solar Setting→Solar Charger	The DC Couple parameters are needed to set on E4 LCD Monitor. In addition, the MPPT connected to the inverter needs to set the address on the MPPT screen (if the MPPT of the all-in-one machine, there is no need to set the address, if the external connection MPPT, need to set the address. For example, if an external MPPT is added to the all-in-one machine, the external MPPT needs to set the address 2)