

ISO New England (ISO-NE) Configuration Instructions

Version History

- Version 1.0 – May 2018 – Initial release

Introduction

This instruction is provided to meet the Inverter Source Requirement Document as published by ISO New England (ISO-NE) in February of 2018. All SolarEdge inverter products produced after work week 14 of 2017 can be programmed appropriately and have the required labeling to meet UL 1741 SA.



NOTE

To check an inverter manufacturing week, check its serial number: the 3rd and 4th characters indicate the production week; the 5th and 6th characters indicate the year. For example, an inverter with serial number **SJ2017-07F123456-B3** was manufactured in week 20 2017.

The ISO-NE Inverter Source Requirement Document can be viewed [here](#).

Procedure

Set Country Code

Establish typical IEEE 1547 settings by setting the country code to the general USA country code for a given grid configuration. For instructions see “Country and Grid” in the Configuration Menu Options section of the provided SolarEdge Installation Guide.

Set Grid Protection Values



NOTE

Adjusting the grid protection parameters is prohibited except as explicitly approved by the grid operator. This feature is offered to you as a convenience, and SolarEdge disclaims all responsibility for any implications of modifying the grid parameters of the inverter in error. SolarEdge will in no event be liable to you, any customer or any third party in connection with these changes.

- If you've exited the menu tree following setting the country code, enter Setup mode again as described in the SolarEdge Installation Guide.
- Select **Maintenance → Grid Protection → Set**. A screen requiring a password is displayed:

```
P l e a s e   e n t e r
P a s s w o r d
* * * * *
```

- Enter the password obtained from SolarEdge. The grid protection value setting menu is displayed:

```
V g M a x 1 < 2 8 8 V , 1 2 0 m s >
V g M a x 2 < 2 6 4 , 1 0 0 0 m s >
V g M i n 1 < 1 2 0 V , 1 2 0 m s >
V g M i n 2 < 2 1 1 V , 2 . 0 s >
F g M a x 1 < 6 0 H z , 1 2 0 m s >
F g M a x 2 < 1 0 0 H z , 6 0 0 s >
F g M i n 1 < 5 9 H z , 1 2 0 m s >
F g M i n 2 < 0 H z , 6 0 0 s >
```



NOTE

Depending on the FW version of the inverter you are programming, you may see up to 5 max and min voltage and frequency settings available. Default values for these available setpoints are always in excess of standard trip-points and do not need to be addressed when programming the ISO-NE trip-points.

- 4 Select one of the entries, for example **VgMax1**. A screen showing the grid protection value and the **Trip Time** value is displayed:

```
V g M a x 1 < 2 8 8 . 0 V >
T r i p   T i m e < 1 2 0 m s >
```

- 5 Set the required values per Table 1 below. For example, **VgMax1**:

```
V g M a x 1
[ V ]
2 8 8 . 0 0
```

```
V g M a x 1
[ m s ]
1 6 0
```

- 6 Exit back to the main menu.

Voltage Trip Settings	240V Grid (V)	208V Grid (V)	277V Grid (V)	Time (ms)
VgMax1	288.00	249.60	332.40	160
VgMax2	283.20	245.44	326.86	500
VgMax3	276.00	239.20	318.55	1000
VgMax4	264.00	228.80	304.70	2000
VgMin1	211.20	183.04	243.76	2000
VgMin2	120.00	104.00	138.50	1100

Frequency Trip Settings	Frequency (Hz)	Time (ms)
FgMax1	62.00	160
FgMax2	61.20	300000
FgMin1	58.50	300000
FgMin2	56.50	160

Table 1



NOTE

If a new country code is selected after these setpoints are entered, these settings will be lost.

Set Soft-Start Ramp Rate (Wakeup Gradient)

The final requirement for the ISO-NE configuration is to set the Soft-Start Ramp Rate to 2% of max current output per second.

- 1 If you've exited the menu tree following setting the grid protection parameters, enter Setup mode again as described in the SolarEdge Installation Guide.
- 2 Select Power Control → Active Pwr Conf.
- 3 Verify **Wakeup Gradient** is enabled (indicator <En> following "Wakeup Gradient"). If it is disabled (indicator <Dis>), select and enable.
- 4 Select Grad Time <0>.
- 5 Scroll up to change 0 to 50 (if you hold the "up" key longer the value will go faster).
- 6 Exit all menus.

Verification

To verify all grid protection settings are programmed select **Maintenance** → **Grid Protection** → **View**. Scroll down and verify all setpoints align with Table 1 above.