

Application Note:

Local Grid Compliance Settings

Puerto Rico (below) and Hawaii (page 2) have special requirements from the local Grid provider. Please set up your Grid parameters according to the settings shown in the screenshots.

Puerto Rico

Program the settings according to the screen below and verify that you follow local requirements.

Grid Param			
Grid selection	Connect	IP	F(W) V(W)/V(Q) P(Q)/P(F)
Over Voltage U>(10 min. running mean)			239.2V
HV3	288.0V		
HV2	288.0V	-- 0.16s	
HV1	264.0V	-- 1.00s	
LV1	211.2V	-- 2.00s	
LV2	144.0V	-- 1.00s	
LV3	108.0V		
HF3	61.50Hz		
HF2	61.50Hz	-- 10.00s	
HF1	60.50Hz	-- 300.00s	
LF1	59.20Hz	-- 300.00s	
LF2	57.50Hz	-- 10.00s	
LF3	57.50Hz		
CANCEL		OK	

Hawaii

Where HECO compliance requirements are mandated, you must set up Grid parameters according to the settings shown below and verify that you are following HECO requirements.

120/240V

Grid Param					
Grid Selection	Connect	IP	F(W)	V(W)/V(Q)	P(Q)/P(F)
Reconnect		Normal connect			
Grid Vol High	252.0V	Grid Vol High	252.0V		
Grid Vol Low	211.2V	Grid Vol Low	211.2V		
Grid Hz High	60.1Hz	Grid Hz High	60.1Hz		
Grid Hz Low	59.5Hz	Grid Hz Low	59.5Hz		
Reconnect Ramp rate	300s	Normal Ramp rate	300s		
			CANCEL OK		

Grid Param					
Grid selection	Connect	IP	F(W)	V(W)/V(Q)	P(Q)/P(F)
Over Voltage U>(10 min. running mean) 276.0V					
HV3	288.0V	HF3	65.00Hz		
HV2	288.0V -- 0.16s	HF2	65.00Hz -- 0.16s		
HV1	264.0V -- 13.00s	HF1	63.00Hz -- 180.00s		
LV1	211.2V -- 21.00s	LF1	57.00Hz -- 180.00s		
LV2	168.0V -- 2.00s	LF2	50.00Hz -- 0.16s		
LV3	120.0V	LF3	49.90Hz		
			CANCEL OK		

120/208V

Grid Param					
Grid Selection	Connect	IP	F(W)	V(W)/V(Q)	P(Q)/P(F)
Reconnect		Normal connect			
Grid Vol High	218.4V	Grid Vol High	218.4V		
Grid Vol Low	183.1V	Grid Vol Low	183.1V		
Grid Hz High	60.1Hz	Grid Hz High	60.1Hz		
Grid Hz Low	59.5Hz	Grid Hz Low	59.5Hz		
Reconnect Ramp rate	300s	Normal Ramp rate	300s		
			CANCEL OK		

Grid Param					
Grid selection	Connect	IP	F(W)	V(W)/V(Q)	P(Q)/P(F)
Over Voltage U>(10 min. running mean) 239.2V					
HV3	249.6V	HF3	65.00Hz		
HV2	249.6V -- 0.16s	HF2	65.00Hz -- 0.16s		
HV1	228.8V -- 13.00s	HF1	63.00Hz -- 180.00s		
LV1	183.0V -- 21.00s	LF1	57.00Hz -- 180.00s		
LV2	145.6V -- 2.00s	LF2	50.00Hz -- 0.16s		
LV3	104.0V	LF3	49.90Hz		
			CANCEL OK		

240V/208V

Grid Param					
Grid Selection	Connect	IP	F(W)	V(W)/V(Q)	P(Q)/P(F)
Grid Mode	3/3	Grid Reconnect Time	300s		
UL1741SB		Power Factor	1.000		
Grid Frequency	<input type="checkbox"/> 50Hz <input checked="" type="checkbox"/> 60Hz	Fixed Q	0%		
<input type="checkbox"/> Single Phase		Q_Response	10S		
<input type="checkbox"/> 120/240V Split Phase		Output V	120/208V		
<input checked="" type="checkbox"/> 120/208V 3 Phase		Output V+	+0V		
			CANCEL OK		

Grid Param					
Grid Selection	Connect	IP	F(W)	V(W)/V(Q)	P(Q)/P(F)
Grid Mode	3/3	Grid Reconnect Time	300s		
UL1741SB		Power Factor	1.000		
Grid Frequency	<input type="checkbox"/> 50Hz <input checked="" type="checkbox"/> 60Hz	Fixed Q	0%		
<input type="checkbox"/> Single Phase		Q_Response	10S		
<input type="checkbox"/> 120/240V Split Phase		Output V	120/208V		
<input checked="" type="checkbox"/> 120/208V 3 Phase		Output V+	+0V		
			CANCEL OK		

F(W)
(Frequency-
Watt)

Grid Param					
Grid selection	Connect	IP	F(W)	V(W)/V(Q)	P(Q)/P(F)
Over frequency	Droop F	40%PE/Hz	<input checked="" type="checkbox"/>		
Start freq F	60.50Hz	Stop freq F	60.50Hz		
Start delay	0.00s	Stop delay	0.00s		
Under frequency	Droop F>	40%PE/Hz			
Start freq F>	59.50Hz	Stop freq F>	59.50Hz		
Start delay F>	0.00s	Stop delay F>	0.00s		
			CANCEL OK		

Document Revision History

Rev.	Date	Author	Description of Changes
001	06/04/2025	Jan Falcona	Document Created