



# PCS Certificate of Compliance

December 31, 2025

Project #Z0652  
Report #LIT31120652

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Subject: UL3141 PCS Aggregate Power Export Limiting for Enphase PV microinverters

Dear Mr. Baligar

This test report represents the results of our evaluation/testing of the PV System to the requirements contained in following standards:

***UL3141 Issue 2 Outline of Investigation for Power Control Systems (PCS) Dated Oct 9<sup>th</sup>, 2024***  
***UL1741 3rd Ed CRD for Power Control Systems (PCS), Dated April 8, 2023***  
***UL1741 2nd Ed CRD for Power Control Systems (PCS), Dated March 8, 2019***

Compliance includes management, control, and limitation of power exchange between PV Systems and Area EPS/AC utility systems

The PCS evaluation was conducted on a representative Enphase System and the certification applies to the following configurations which were part of the tested system in the PCS modes defined below.

PCS Modes <sup>1</sup>	PV Model <sup>2</sup>	Max PV Ratings	Additional Devices needed for PCS functionality	Range of controlled export Power	Measured Average/ Maximum OLRT	Measured Average/ Maximum Settling Time
Aggregate Power Export Limiting	IQ9N-3P PV	166.53 kVA	IQ Gateway Pro with Consumption CTs	166.53kW to 0W	0.87s / 2.00s	3.39s / 9.95s
			IQ Gateway Pro with Remote Meter		3.15s / 6.90s	4.83s / 5.15s
Import Only (Zero Export - PV only)	IQ9N-3P PV	166.53 kVA	IQ Gateway Pro with Consumption CTs	0W	0.78s / 2.00s	2.13s / 3.65s
			IQ Gateway Pro with Remote Meter		3.39s / 6.90s	5.16s / 14.95s

<sup>1</sup>Tested with PCS eSW 1.4.0

<sup>2</sup>Please see System configuration table further for exact variations of SKU model numbers.

**Aggregate Power Export Limit:**

This is a PCS mode where the PV system was evaluated for its ability to limit aggregate export levels across all phases to the grid. Export levels and power generated by the PV were monitored during the test.

The test verified that when the system was subjected to step changes in load and step changes in generation, the power exported to the grid did not exceed the limit set. The test was conducted at various Generation and Load power levels as specified in UL 3141. The system continued to maintain export power to this limit after the step change across the range configurable power limits set.



**Import Only (Zero Export - PV only):**

This is a PCS mode where an Enphase PV system was evaluated for its ability not to export power to the Grid. Export levels by the PV were monitored. Tests verified that when PV power or system load levels were subjected to step changes, the system did not export power to the grid. This mode is configured by making the Aggregate Power Export Limit set to zero.

The table below describes the System configuration and SKUs associated with tested PCS mode(s)

System Component	Product SKUs	Equipment required in PCS mode?
Enphase PV	IQ9N-3P-277-A-US; IQ9N-3P-277-A-DOM-US;	Required
Enphase IQ Gateway Pro	GW0-1CL-1N-D0-0R	Required
CTs	For solar production monitoring: At least 3 units CT-400-277-SOLID For consumption monitoring: At least 3 units of CT-600-277-SPLIT or Remote Meter <sup>1</sup>	Required <sup>1</sup>
Remote Meter	Remote Meter: DTS310-3X-EB-X-X when paired with any 333mV Class 0.5 CT or Rogowski Coil	Required <sup>1</sup>

<sup>1</sup>For consumption monitoring either consumption CTs (CT-600-SPLIT) or Remote Meter is 'Required'. Both are not required for operation of this mode.

If there are any questions regarding the results contained in this report, please contact me or any Bureau Veritas CPS customer service representative.

Sincerely,

*Dishant Patel*

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