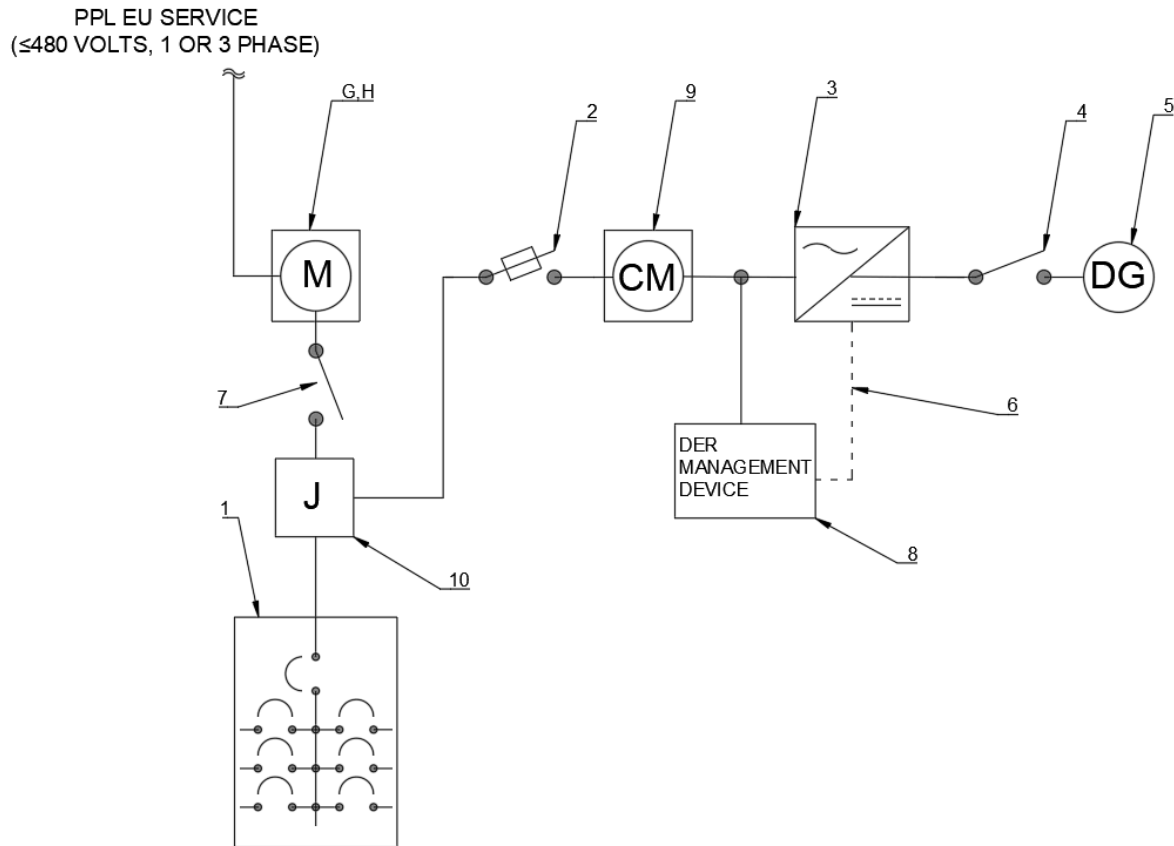


Sketch #57a Inverter-based renewable generation for DG capacity over 20% of the load center bus bar rating for 480V, self-contained metering installations

<u>Voltage/ Phase:</u> 1 Phase, 3 Wire Network 277/480V* 1 Phase, 3 Wire 240/480V* 3 Phase, 4 Wire WYE 277/480V	<u>Amperage:</u> N/A	<u>Inverter Continuous Current</u> N/A
<u>Service Type:</u> Overhead/Underground	<u>Meter Type/Location:</u> Self-contained/Outdoor	<u>Bus Bar Rating:</u> N/A

* The maximum parallel connection (generation) permitted on a single-phase installation is 150 kW.

NOT FOR NEW CONSTRUCTION



*Reference: SKETCH 55a

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Sketch #57a Inverter-based renewable generation for DG capacity over 20% of the load center bus bar rating for 480V, self-contained metering installations (cont.)

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

1. Load center
2. AC disconnect switched (fused).
3. Inverter(s) (includes metering and communication features) inverter shall be labeled as IEEE 1547/UL 1741 listed.
4. DC disconnect
5. Distributed Generation (DG) source
7. AC disconnect
9. Customer metering (optional)
10. Point of interconnection shall be made within a service entrance rated enclosure, such as a junction box, new or existing customer distribution equipment, etc. Customer equipment/conductors are not permitted within utility sealed sections (REMSI Rule 12). Conductor taps shall be made using UL-listed tap connectors.

PPL EU FURNISHES, INSTALLS, MAINTAINS

6. Wired communication between PPL DER Management Device and inverter.
8. PPL communication device to PPL network.

Reference: SKETCH 55a

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<p>RULES FOR ELECTRIC METER AND SERVICE INSTALLATIONS PPL ELECTRIC UTILITIES CORPORATION</p>	<p>Rules: 2, 12, 28 Date: 07/10/2023 Engr: JEU</p>
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REMSI Sketches 51-100
Sketch #57a
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Sketch #57a Inverter-based renewable generation for DG capacity over 20% of the load center bus bar rating for 480V, self-contained metering installations (cont.)

NOTES:

- A. See PPL EU customer-owned generation website for more information.
- B. Application for customer-owned, inverter-based renewable generation must be completed. See customer-owned generation applications.
- C. PPL EU requires an independent electrical inspection. The inspector is required to verify the IEEE/UL listing of the inverter.
- D. Installation must adhere to requirements of National Electrical Code (NEC) article 690 and article 705.
- E. All labeling must be in accordance with NEC article 690.
- F. In addition to Note D, PPL EU will install permanent labeling on the meter base (PPL EU catalog #1012171) and pad mount transformer (CID 1012171) or pole mount transformer (CID 1013816) upon receipt of inspection
- G. Metering – 480v self-contained – see self-contained 480v metering series organization map to determine appropriate sketch for service type and size, for metering requirements, and responsibilities. Foreign energy sources shall not be connected directly to metering equipment. See rule 12.
- H. Installations requiring 480v self-contained metering following sketch #71 or sketch #72 requires PPL EU review and approval.
- I. If a neutral connection exists at the inverter, the inverter neutral shall be connected to the service neutral.
- J. customer shall contact PPL EU prior to any new installations depicted in this sketch.
- K. PPL requires a local RS-485 or ethernet communication interface, also referred to as a communication port, to be open and accessible for the company owned DER management device (IEEE 1547-2018, sec. 10.1,4).
- L. Installations with multiple inverters shall be networked together by the customer per manufacturer guidelines or RS-485 multidrop networking. A communication network diagram depicting port availability and networking design shall be included with the system's interconnection application.
- M. For inverters where an additional module or kit is required to make the communication interface/port available, the module or kit must be included as part of the installed system. Reference PPL's approved solar inverter list for specific information.
- N. In the event of an outage or interruption due to equipment failure, weather, etc., any connected DER systems may be temporarily interrupted during the service restoration process.

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RULES FOR ELECTRIC METER AND SERVICE
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