

REMSI Sketches 1-25 Sketch #16 6-50

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Sketch #16 Typical arrangement of pad mounted metering and service termination cabinet up to eight 750 KCMIL conductors per phase

<u>VOLTAGE:</u> 3 Phase, 4 Wire Wye 120/280V 3 Phase, 4 Wire Wye 277/480V	SERVICE TYPE: Underground
AMPERAGE:	CABINET LOCATION:
2000A Maximum	Outdoor

NOT TO SCALE



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Sketch #16 Typical arrangement of pad mounted metering and service termination cabinet up to eight 750 KCMIL conductors per phase (cont.)



FINISHED GRADE

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Sketch #16 Typical arrangement of pad mounted metering and service termination cabinet up to eight 750 KCMIL conductors per phase (cont.)

CUSTOMER FURNISHES, INSTALLS, MAINTAINS:

- Sealable metal cabinet minimum 48" wide by 78" high by 46" deep. Outdoor Cabinet must be NEMA-3R (Weatherproof). Includes all conduits, buswork, hardware, etc. except for that equipment designated as being provided by PPL EU. See REMSI Table 1 – Approved Pad Mounted metering and service termination cabinet for preapproved list.
- 2. 1-1/4" minimum threaded galvanized or intermediate rigid steel or schedule 40 PVC conduit and fitting between instrument transformers and meter panel.
- 3. Customer is responsible for bus arrangement, internals, and cabinet.
- 4. Meter grounding terminal block mounted on an insulated standoff at the top of the VT bracket. Must accommodate two #6 and five #10 stranded copper conductors and be bonded to the neutral bus with a #6 copper conductor.
- 5. Neutral bus to be bolted to cabinet for bonding purposes. Termination to customers' ground bus is not permitted inside the cabinet. Neutral bonding shall be terminated on the ground bus in the customer termination cabinet.
- 6. Grounding bushings shall be attached to all metal conduits. The conduits shall be bonded together to the cabinet and the neutral bar.
- 7. Two 34" pieces of Unistrut are to be mounted, by the cabinet manufacturer, vertically 9-1/2" from centerline to centerline apart. The bottom of the Unistrut shall be 34", the top of the Unistrut shall be 68" from the bottom of the cabinet. The Unistrut will be mounted on the outside of the cabinet in the vicinity of PPL EU's section of the cabinet.

The Unistrut shall be mounted on either side or both sides of the PPL EU section of the cabinet. See Note I for more information.

CUSTOMER FURNISHES, INSTALLS; PPL EU MAINTAINS

8. PPL EU specifies the number of conduits, (min 4") in PPL EU's section. Number of conduits is determined by the size of the transformer service entrance up to 8 conduits. Galvanized rigid or intermediate steel conduit sweeps shall have a 36" minimum bending radius.

PPL EU FURNISHES, MAINTAINS; CUSTOMER INSTALLS:

- 9. Current Transformers.
- 10. Voltage Transformers for 277/480V services.
- 11. Meter Panel.

PPL EU FURNISHES, INSTALLS, MAINTAINS:

12. Wiring between instrument transformers and meter panel. See Rule 15.

13. Meter.

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NOTES:

- A. PPL EU connects starting from the right side of the neutral bar when accessing from PPL EU's section. The customer connects starting from the right side of the neutral bar when accessing from the customers section.
- B. 1/4" x 20 Tapped hole and hex head screw for metering voltage connection
- C. Adjustable CT support
- D. Minimum clearance from the bar to the top of conduits. See rule 15(F) and sketch #50 for cable limiter details.
- E. PPL EU and customer doors must be triple hinged. The hinges and hinge pins must be non-removable. The PPL EU and customer doors must also be sealable. See note F and note G.
- F. A three-point section mechanism that secures both doors is required. The latching bars must pass through a guide that assures correct latching. The latching mechanism cannot protrude more than 1" inside the cabinet. All connection bolts must be permanently secured to prevent accidental contact of any metal part should the latching assembly fail.
- G. The latching mechanism handle must be designed to provide a locking provision in the closed position. A $\frac{1}{2}$ hole is required for the locking provision. Key locking of the handle is not allowed.
- H. Refer to the approved metering and equipment tables (Table 1) for pre-approved pad mounted metering and service termination cabinets. Cabinets not already on the pre-approved list must have detailed construction drawings submitted to PPL EU for approval by the area design supervisor prior to construction.
- I. In the event the Unistrut has not been mounted by the cabinet manufacturer, the meter panel is not permitted to be installed on the cabinet. The meter panel shall then be installed on a separate mounting arrangement within visual distance of the cabinet. See sketch #8D. Contact metering support for location of meter panel. Meter panel information see sketch #8C. Metering conduit will need to be installed in the foundation to run between the instrument cabinet and the meter panel. The metering conduit shall be bonded to the other conduit and the cabinet.
- J. Clear space-see sketch #8C and Rule 13 for more information.
- K. See Barrier sketch #20 as required by PPL EU.

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NOT TO SCALE

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