

WAC 296-46B-215 Wiring and protection—Feeders.

002 Minimum rating and size.

(1) For other than one- or two-family dwelling feeders rated up to 400 amperes, if the feeder conductors have a lesser ampacity than the equipment rating that they terminate in or on, an identification plate showing conductor ampacity stating: "Feeder conductor ampacity: _____" must be installed on the equipment at the load end of the feeder conductors.

005 Diagrams of feeders.

(2) Other than plan review projects, the installer must provide a one-line diagram showing the service and feeder details for the project before the initial inspection can be approved for all nondwelling services or feeders:

- (a) Larger than 400 amperes; or
- (b) Over 600 volts.

The diagram must be signed and dated by the project owner if the owner is doing the work, the assigned administrator or master electrician if an electrical contractor is doing the work, or stamped with an engineer's mark and signature who is registered under chapter 18.43 RCW. The diagram must show:

(c) All services including: Wire size(s), wire type(s), service size(s) (e.g., voltage, phase, ampacity), overcurrent protection, available symmetrical fault current at the service point, equipment short-circuit rating, total load before and after demand factors have been applied including any demand factors used, and a panel schedule where multiple disconnecting devices are present; and

(d) All feeders including: Wire size(s), wire type(s), feeder size(s) (e.g., voltage, phase, ampacity), overcurrent protection, total calculated load before and after demand factors have been applied including any demand factors used, and a panel schedule(s) where multiple disconnecting devices are present.

If the installer deviates, in any way, from the service/feeder design shown on the diagram, a supplemental diagram must be supplied to the inspector showing the most recent design before inspection can proceed. Load reductions and moving branch circuit locations within a panelboard do not require a supplemental diagram. Written documentation must also be provided to the inspector that the supplemental diagram was provided to the project owner at the time of submission to the inspector.

The diagram must be available on the job site during the inspection process.

010 Ground fault protection testing.

(3) Equipment ground fault protection systems required by the NEC must be tested prior to being placed into service to verify proper installation and operation of the system as determined by the manufacturer's published instructions. This test or a subsequent test must include all system feeders unless the installer can demonstrate, in a manner acceptable to the inspector, that there are no grounded conductor connections to the feeder(s). A firm having qualified personnel and proper equipment must perform the tests required. A copy of the manufacturer's performance testing instructions and a written performance acceptance test record signed by the person performing the test must be available at the time of inspection. The performance acceptance test record must include test details including, but not limited to, all trip settings and measurements taken during the test.

[Statutory Authority: Chapter 19.28 RCW, RCW 19.28.031 and 19.28.251. WSR 19-15-117, § 296-46B-215, filed 7/23/19, effective 8/23/19. Statutory Authority: Chapter 19.28 RCW. WSR 14-11-075, § 296-46B-215, filed 5/20/14, effective 7/1/14; WSR 13-03-128, § 296-46B-215, filed 1/22/13, effective 3/1/13. Statutory Authority: RCW 19.28.006, 19.28.010, 19.28.031, 19.28.041, 19.28.061, 19.28.101, 19.28.131, 19.28.161, 19.28.171, 19.28.191, 19.28.201, 19.28.211, 19.28.241, 19.28.251, 19.28.281, 19.28.311, 19.28.321, 19.28.400, 19.28.420, 19.28.490, 19.28.551. WSR 08-24-048, § 296-46B-215, filed 11/25/08, effective 12/31/08. Statutory Authority: RCW 19.28.006, 19.28.010, 19.28.031, 19.28.041, 19.28.061, 19.28.101, 19.28.131, 19.28.161, 19.28.171, 19.28.191, 19.28.201, 19.28.211, 19.28.241, 19.28.251, 19.28.271, 19.28.311, 19.28.321, 19.28.400, 19.28.420, 19.28.490, 19.28.551, 2002 c 249, chapters 34.05 and 19.28 RCW. WSR 03-09-111, § 296-46B-215, filed 4/22/03, effective 5/23/03.]