

General Purpose Transformer Overcurrent Protection

The fuse chart below indicates Overcurrent Protection (OCP) requirements for General Purpose transformers. Please refer to NEC® Section 240-3 (i), 450-3 and applicable

local codes for additional details on overcurrent protection practices. The chart applies to transformers rated 600 volts and below.

Feeder Circuit	Phase	No. of Secondary Wires	Primary Current (I_p)	Primary Protection (% of Pri I_p)	Secondary Current (I_s)	Secondary Protection (% of Sec. I_s)
No OCP	1	2	Less than 2 2 to less than 9 9 or more	Required 300% Max. 167% Max. 125% *	Not Applicable	Not Required
No OCP	3	3 (Delta-Delta Only)	Less than 2 2 to less than 9 9 or more	Required 300% Max. 167% Max. 125% *	Not Applicable	Not Required
No OCP	1	More than 2	All Values	Required 250% Max.	Less than 9 9 or more	Required 167% 125%*
No OCP	3	More than 3	All Values	Required 250% Max.	Less than 9 9 or more	Required 167% 125%*
Has OCP Meeting Requirements of Note A	1	2	Not Applicable	Not Required	Not Applicable	Not Required
Has OCP Meeting Requirements of Note A	3	3 (Delta-Delta Only)	Not Applicable	Not Required	Not Applicable	Not Required
Has OCP Meeting Requirements of Note B	1	More than 2	Not Applicable	Not Required	Less than 9 9 or more	Required 167% 125%*
Has OCP Meeting Requirements of Note B	3	More than 3	Not Applicable	Not Required	Less than 9 9 or more	Required 167% 125%*

Note A: Overcurrent protection (OCP) must meet the following criteria to qualify:

- Less than 2 amps, maximum of 300% of primary current (I_p)
- 2 amps to less than 9 amps, maximum of 167% of primary current (I_p)
- 9 amps or more, 125% of primary current (I_p) or next size larger.

Note B: Branch circuit Overcurrent Protection (OCP) can be a maximum of 250% of the Primary Current. If this requirement is not met, then go to the chart section where no Overcurrent Protection (OCP) is provided.

*If this calculated number does not correspond to a standard fuse size, the next larger size is permitted.

Section 240-6(a) of the 1996 National Electric Code® provides a table of standard ampere rating for fuses and fixed trip circuit breakers:

The standard ampere ratings for fuses and inverse time circuit breakers shall be considered 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500, 600, 700, 800, 1000, 1200, 1600, 2000, 2500, 3000, 4000, 5000 and 6000 amperes.

Exception: Additional standard ratings for fuses shall be considered 1, 3, 6, 10, and 601.

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