

INTERRUPTING RATING & SHORT-CIRCUIT CURRENT RATING INSPECTION FORM

ISSUED BY: _____

This form provides documentation to indicate compliance with the following NFPA 70, 2011 National Electrical Code® (NEC) requirements for interrupting ratings, short-circuit current ratings and the marking requirements for available fault current found in Articles **100, 110, 230, 285, 409, 430, 440, 670, and 705.**

JOB #: _____ NAME: _____

LOCATION: _____ FIRM: _____

COMPLIANCE CHECKLIST

Several sections in the Code require proper interrupting rating of overcurrent protective devices and short-circuit current ratings of equipment. In addition to the requirements listed below, other equipment, such as panelboards, switchboards, busway, motor control centers, disconnects, automatic transfer switches and fire pump controllers should be verified for proper short-circuit current ratings in accordance with NEC 110.3(B) and 110.10 as shown below.

Interrupting Rating and Short-Circuit Current Rating

ARTICLE 100 – DEFINITIONS

Interrupting Rating. *The highest current at rated voltage that a device is identified to interrupt under standard test conditions.*

Short-Circuit Current Rating. *The prospective symmetrical fault current at a nominal voltage to which an apparatus or system is able to be connected without sustaining damage exceeding defined acceptance criteria.*

Verify Proper Interrupting Ratings, Short-Circuit Current Ratings and Available Fault Current Marking

ARTICLE 110 – REQUIREMENTS FOR ELECTRICAL INSTALLATIONS

110.3(B) Installation and Use. *Listed or labeled equipment shall be installed and used in accordance with any instructions included in the listing or labeling.* YES NO N/A

110.9 Interrupting Rating. *Equipment intended to interrupt current at fault levels shall have an interrupting rating not less than the nominal circuit voltage and the current that is available at the line terminals of the equipment. Equipment intended to interrupt current at other than fault levels shall have an interrupting rating at nominal circuit voltage not less than the current that must be interrupted.* YES NO N/A

Note: See NEC 240.86 and 110.22 for requirements where series ratings are used.

110.10 Circuit Impedance, Short-Circuit Current Ratings, and Other Characteristics. YES NO N/A
The overcurrent protective devices, the total impedance, the equipment short-circuit current ratings, and other characteristics of the circuit to be protected shall be selected and coordinated to permit the circuit protective devices used to clear a fault to do so without extensive damage to the electrical equipment of the circuit...

110.24 Available Fault Current. YES NO N/A
(A) Field Marking. *Service equipment in other than dwelling units shall be legibly marked in the field with the maximum available fault current. The field marking(s) shall include the date the fault current calculation was performed and be of sufficient durability to withstand the environment involved.*

(B) Modifications. *When modifications to the electrical installation occur that affect the maximum available fault current at the service, the maximum available fault current shall be verified or recalculated as necessary to ensure the service equipment ratings are sufficient for the maximum available fault current at the line terminals of the equipment. The required field marking(s) in 110.24(A) shall be adjusted to reflect the new level of maximum available fault current.*

Verify Proper Interrupting Ratings, Short-Circuit Current Ratings and Available Fault Current Marking

ARTICLE 230 – SERVICES

230.82(3) Meter disconnect switches nominally rated not in excess of 600 volts that have a short-circuit current rating equal to or greater than the available short-circuit current, provided all metal housings and service enclosures are grounded in accordance with Part VII and bonded in accordance with Part V of Article 250. YES NO N/A

ARTICLE 285 – SURGE-PROTECTIVE DEVICES (SPDS), 1 KV OR LESS

285.6 Short-Circuit Current Rating. The SPD (surge arrester or TVSS) shall be marked with a short-circuit current rating and shall not be installed at a point on the system where the available fault current is in excess of that rating. This marking requirement shall not apply to receptacles. YES NO N/A

ARTICLE 409 – INDUSTRIAL CONTROL PANELS

409.110(4) Short-circuit current rating of the industrial control panel based on one of the following: YES NO N/A
a. Short-circuit current rating of a listed and labeled assembly
b. Short-circuit current rating established utilizing an approved method

409.22 Short-Circuit Current Rating. An industrial control panel shall not be installed where the available fault current exceeds its short-circuit current rating as marked in accordance with 409.110(4). YES NO N/A

ARTICLE 430 – MOTORS, MOTOR CIRCUITS AND CONTROLLERS

430.8 Motor Controllers. A controller shall be marked with the manufacturer's name or identification, the voltage, the current or horsepower rating, the short-circuit current rating, and such other necessary data to properly indicate the applications for which it is suitable. YES NO N/A

ARTICLE 440 – AIR-CONDITIONING AND REFRIGERATING EQUIPMENT

440.4(B) (B) Multimotor and Combination-Load Equipment. Multimotor and combination-load equipment shall be provided with a visible nameplate marked with the maker's name, the rating in volts, frequency and number of phases, minimum supply circuit conductor ampacity, the maximum rating of the branch-circuit short-circuit and ground-fault protective device, and the short-circuit current rating of the motor controllers or industrial control panel. YES NO N/A
Exception No. 3: Multimotor and combination-load equipment used in one- and two-family dwellings, cord-and attachment-plug-connected equipment, or equipment supplied from a branch circuit protected at 60 A or less shall not be required to be marked with a short-circuit current rating.

ARTICLE 670 – INDUSTRIAL MACHINERY

670.3(A)(4) Short-circuit current rating of the machine industrial control panel based on one of the following: YES NO N/A
a. Short-circuit current rating of a listed and labeled assembly
b. Short-circuit current rating established utilizing an approved method

670.5 Short-Circuit Current Rating. Industrial machinery shall not be installed where the available fault current exceeds its short-circuit current rating as marked in accordance with 670.3(A)(4). YES NO N/A

ARTICLE 705 – INTERCONNECTED ELECTRIC POWER PRODUCTION SOURCES

705.16 Interrupting and Short-Circuit Current Rating. Consideration shall be given to the contribution of fault currents from all interconnected power sources for the interrupting and short-circuit current ratings of equipment on interactive systems. YES NO N/A

____ Signature _____ Date _____ P.E. Seal